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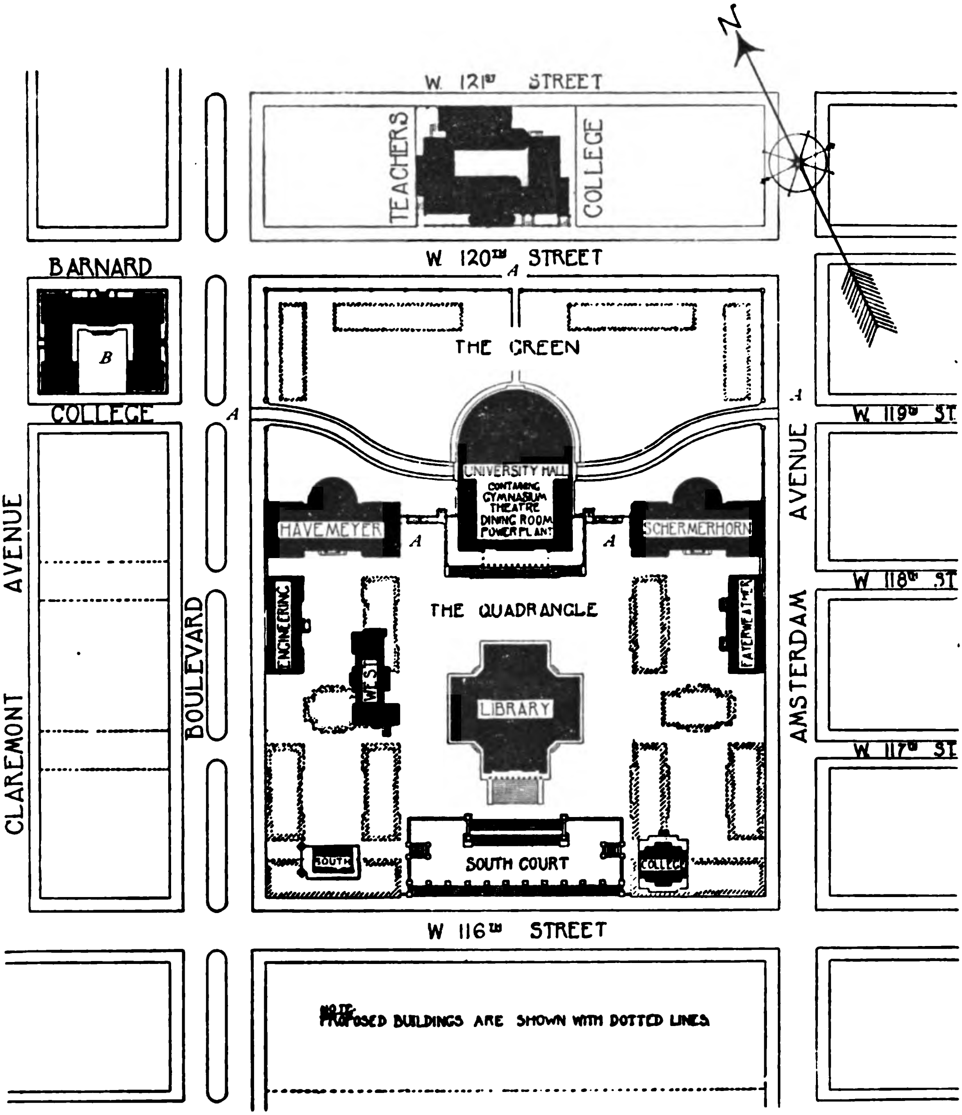
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WILLIAM J. GIES, M.S., Ph.D..........Instructor in Physiological Chemistry
† HERBERT MAULE RICHARDS, S.D....................Instructor in Botany
WILLIAM K. SIMPSON, M.D....Chief of Clinic and Instructor in Laryngology
CHARLES NORTH DOWD, M.D........................Instructor in Surgery
GEORGE MONTAGUE SWIFT, M.D...................Instructor in Medicine
RICHARD FROTHINGHAM, M.D...................Instructor in Laryngology
ARTHUR MORGAN DAY, A.M., Instructor in Political Economy and Social Science
FRANCIS CARTER WOOD, M.D..............Instructor in Clinical Pathology
CHARLES CONRAD SLEFFEL........Instructor in Forging in Teachers College
CHARLES W. WEICK......Instructor in Wood-working and Pattern-making in Teachers College
GARY N. CALKINS, Ph.D..........................Instructor in Zoölogy
PHILIP HANSON HISS, Jr., M.D......Instructor in Bacteriology and Hygiene
† MARGARET E. MALTBY, Ph.D....................Instructor in Chemistry
LEA McILVAINE LUQUER, Ph.D..................Instructor in Mineralogy
LOUIS AUGUSTE LOISEAUX, B.S....Instructor in the Romance Languages and Literatures
WILLIAM T. BREWSTER, A.M.......................Instructor in English
GEORGE CLINTON DENSMORE ODELL, Ph.D............Instructor in English
WILLIAM ADDISON HERVEY, A.M., Instructor in the Germanic Languages and Literatures
CASSIUS JACKSON KEYSER, A.M.................Instructor in Mathematics
† HENRY E. CRAMPTON, Ph.D.......................Instructor in Zoölogy
† CHARLES KNAPP, Ph.D.................Instructor in Classical Philology
FRANK C. HOOPER, Met. E.........................Instructor in Mining
WRAY ANNIN BENTLEY, B.S......................Instructor in Metallurgy
WILLIAM H. CASWELL, M.D.....................Instructor in Neurology
FRANKLIN A. DORMAN, M.D......................Instructor in Obstetrics
JOSEPH A. BLAKE, M.D............................Instructor in Surgery
GEORGE E. BREWER, M.D..........................Instructor in Surgery
WALTON MARTIN, M.D., Instructor in Surgery and Assistant Demonstrator of Anatomy
ALBERT E. SUMNER, M.D................Instructor in Physical Diagnosis
E. MILTON FOOTE, M.D...........Chief of Clinic and Instructor in Surgery
CHARLES H. PECK, M.D...........Assistant Instructor in Operative Surgery
WARREN S. BICKHAM, M.D........Assistant Instructor in Operative Surgery
ALFRED S. TAYLOR, M.D..........Assistant Instructor in Operative Surgery

† On Barnard College Foundation.

Demonstrators

Bern B. Gallaudet, M.D., Demonstrator of Anatomy and Instructor in Surgery
John S. Thacher, M.D.............Demonstrator in Pathological Anatomy
* Fred J. Brockway, M.D........Assistant Demonstrator of Anatomy, and Secretary of the Faculty of Medicine
Howard D. Collins, M.D.............Assistant Demonstrator of Anatomy
Charles C. Carmalt, M.D.............Assistant Demonstrator of Anatomy
William H. Rockwell, Jr., M.D......Assistant Demonstrator of Anatomy
* George W. Crary, M.D..............Assistant Demonstrator of Anatomy
Arthur Seymour Vosburgh, M.D.....Assistant Demonstrator of Anatomy
George Patten Biggs, M.D........Demonstrator in Pathological Anatomy
Henry E. Hale, M.D.................Assistant Demonstrator of Anatomy
Adrian Van Sinderen Lambert, M.D...Assistant Demonstrator of Anatomy
Victor Cox Pedersen, M.D............Assistant Demonstrator of Anatomy
Robert Allyn Budington, A.M......Assistant Demonstrator of Physiology
Nathan Williams Green, M.D......Assistant Demonstrator of Physiology
Carleton P. Flint, M.D..............Assistant Demonstrator of Anatomy

Tutors

Louis H. Laudy, Ph.D.......................Tutor in General Chemistry
Joseph C. Pfister, A.M............................Tutor in Mechanics
Arthur Hollick, Ph.D...............................Tutor in Geology
Herschel C. Parker, Ph.B............................Tutor in Physics
Charles P. Warren, A.M............Tutor in Architectural Construction
Carlton Clarence Curtis, Ph.D.......................Tutor in Botany
Oliver S. Strong, Ph.D...Tutor in Comparative Neurology and Assistant in Normal Histology
Charles C. Trowbridge, B.S..........................Tutor in Physics
Adolph Black, C.E..........................Tutor in Civil Engineering
Samuel A. Tucker, Ph.B..................Tutor in Industrial Chemistry
J. Livingston Rutgers Morgan, B.S., Ph.D..Tutor in Chemical Philosophy and Chemical Physics
Frank Leo Tufts, Ph.D...............................Tutor in Physics
Milton C. Whitaker, M.S..........................Tutor in Chemistry
† Rudolf Tombo, Sr., Ph.D..........................Tutor in German
William S. Day, Ph.D................................Tutor in Physics
James Howard McGregor, Ph.D......................Tutor in Zoölogy
Leonard Beecher McWhood, A.B.......................Tutor in Music
S. Alfred Mitchell, Ph.D.........................Tutor in Astronomy
August Jerome Lartigau, M.D.....................Tutor in Pathology
Fitzhugh Townsend, A.B., E.E...........Tutor in Electrical Engineering
† Henry Jagoe Burchell, Jr., A.M...........Tutor in Classical Philology
Frederick R. Bailey, M.D.........Tutor in the Normal and Pathological Histology of the Nervous System
John Henry Larkin, M.D..Tutor in Pathology and Curator of the Museum

* Absent on leave.
† On Barnard College Foundation.

Henry Bedinger Mitchell, A.M.	Tutor in Mathematics
Joel Elias Spingarn, Ph.D.	Tutor in Comparative Literature
William Robert Shepherd, Ph.D.	Tutor in History
Philip G. Carleton, A.B.	Tutor in English
Daniel Jordan, B.S., Pd.B.	Tutor in the Romance Languages and Literatures
† Louise B. Dunn, A.M.	Tutor in Botany
Rudolf Tombo, Jr., A.M.	Tutor in the Germanic Languages and Literatures
George Arthur Goodell, A.M.	Tutor in Chemistry
† Edward Kasner, Ph.D.	Tutor in Mathematics
James Ditmars Voorhees, M.D.	Tutor in Obstetrics
Arthur F. J. Remy, A.M.	Tutor in the Germanic Languages and Literatures
Charles Allen Whiting, M.D.	Tutor in Gynecology

Assistants

Herbert Percy Whitlock, C.E.	Assistant in Mineralogy
Edward L'H. McGinnis, M.D.	Electro-Therapeutist
Flora E. Harpham, A.M.	Computor at the Observatory
William Frederick Neumann, M.D.	Assistant in Bacteriology and Hygiene
Alfred Newton Richards, A.B.	Assistant in Physiological Chemistry
Walter Wheeler Cook, A.M.	Assistant in Mathematics
D. Stuart Dodge Jessup, M.D.	Assistant in Clinical Pathology and Clinical Assistant in Surgery
* John Driscoll Fitz-Gerald, II, A.B.	Assistant in the Romance Languages and Literatures
Adam Leroy Jones, Ph.D.	Assistant in Philosophy
Samuel Osgood Miller, C.E.	Assistant in Mechanical Engineering
William B. Johnstone, C.E.	Assistant in Physics
John Garrett Underhill, Ph.D.	Assistant in Comparative Literature
Lewis Nathaniel Chase, A.M.	Assistant in Comparative Literature
Barry Hogarty	Assistant in Analytical Chemistry
Ernest Nash Wilcox, M.D.	Assistant in Normal Histology
Evan M. Evans, M.D.	Assistant in Clinical Pathology
William D. Cutter, A.B.	Assistant in Physiological Chemistry
Frederick Clark Paulmier, M.S., Ph.D.	Assistant in Zoölogy
Augustus B. Wadsworth, M.D.	Assistant in Bacteriology and Hygiene
Charles Sidney Aylmer-Small, E.E.	Assistant in Electrical Engineering
William W. Comstock, A.B.	Assistant in Physics
Homer Munro Derr, A.B.	Assistant in Physics
† Wilhelm Alfred Braun, A.B.	Assistant in the Germanic Languages and Literatures
† Jeannette Bliss Gillespy, A.B.	Assistant in Rhetoric
Harlan Updegraff, A.M.	Assistant in Philosophy and Education
William Harper Davis, A.B.	Assistant in Psychology
David H. Pollard, A.B.	Assistant in Mathematics
George Braxton Pegram, A.B.	Assistant in Physics
Charles W. Crampton, M.D.	Assistant in Normal Histology

* Absent on leave.

† On Barnard College Foundation.

James Thomson Shotwell, A.B.	Assistant Lecturer in History
† Grace Andrews, A.M.	Assistant in Mathematics
† Ada Watterson, A.M.	Assistant in Botany and Zoölogy
† Eleanor Keller, A.B.	Assistant in Chemistry
Emil A. C. Keppler, A.M.	Assistant in the Germanic Languages and Literatures
Arthur Colon Neish, A.M.	Assistant in Analytical Chemistry
Charles Edward Caspari, Ph.D.	Assistant in Organic Chemistry
Bergen Davis, A.M.	Assistant in Physics
Alfred Tingle, Ph.D.	Assistant in Analytical Chemistry
Llewellyn Le Count, C.E.*	Assistant in Civil Engineering
Frank E. Pendleton, Mech. E.	Assistant in Mechanical Engineering
Charles Knap Hitchcock, Jr., A.M., E.M.	Assistant in Mining
William C. Clarke, E.M.	Assistant in Metallurgy
Hardee Chambliss, M.S., Ph.D.	Assistant in Chemistry
Wolfram E. Dreyfus, Ph.D.	Assistant in Analytical Chemistry
† Virginia C. Gildersleeve, A.M.	Assistant in English
Charles E. Banker, M.D.	Assistant in Normal Histology

Curators

Maximilian K. Kress, A.M.	Curator and Lecturer in Architecture
Gilbert van Ingen	Curator of the Geological Collections
Marshall Avery Howe, Ph.D.	Curator of the Herbarium

Lecturers

William Zebina Ripley, Ph.D.	Prize Lecturer in Sociology
Rev. Abraham Yohannan	Lecturer in Oriental Languages
Charles Augustus Strong, A.B.	Lecturer in Psychology
Charles T. Terry, A.B., LL.B.	Lecturer in the Law School
George James Bayles, Ph.D.	Prize Lecturer on Ecclesiastical Organization and Government in the United States
William T. Partridge	Lecturer in Architectural Design
Russell H. Chittenden, Ph.D.	Director of the Department of Physiological Chemistry and Lecturer
Wellington Putnam	Lecturer on Elocution
† Henry Bargy, A.M.	Lecturer in the Romance Languages and Literatures
George William Hill, Sc.D., LL.D.	Lecturer in Celestial Mechanics
George N. Olcott, Ph.D.	Lecturer in Roman Archæology
Gustav Hinrichs	Conductor of Music
† William A. Nitze, Ph.D.	Lecturer in the Romance Languages and Literatures
Harlan Fiske Stone, M.A., LL.B.	Lecturer in the Law School
Henry Clapp Sherman, Ph.D.	Lecturer in Analytical Chemistry
James Dennison Rogers, Ph.D.	Lecturer in Greek
Curtis Hidden Page, Ph.D.	Lecturer in the Romance Languages and Literatures
Henry F. Hornbostel, Ph.B.	Lecturer in Architectural Design
Cavalier Hargrave Jouet, Ph.D.	Lecturer in Analytical Chemistry
George Philip Krapp, Ph.D.	Lecturer in English

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* Died November 14, 1900.

† On Barnard College Foundation.

†Charles Lee Raper, A.B.	Lecturer in History
A. Béziat de Bordes, Ph.D.	Lecturer in the Romance Languages and Literatures
Joseph Struthers, Ph.D.	Honorary Lecturer in Metallurgy

Clinical Assistants at the Vanderbilt Clinic

John Aldrich, M.D.	Dermatology
William Armstrong, M.D.	Medicine
Charles E. Atwood, M.D.	Neurology
J. C. Ayer, M.D.	Surgery
Pearce Bailey, M.D.	Neurology
Donald M. Barstow, M.D.	Medicine
Edmund W. Bill, M.D.	Laryngology
A. B. Bonar, M.D.	Neurology
William L. Bradley, M.D.	Gynecology
Arthur R. Braunlich, M.D.	Medicine
Walter B. Brouner, M.D.	Venereal Diseases
Albert F. Brugman, M.D.	Diseases of Children
John Cabot, M.D.	Dermatology
Archibald Campbell, M.D.	Neurology
M. L. Carr, M.D.	Otology
Edward B. Coburn, M.D.	Ophthalmology
Arthur P. Coll, M.D.	Laryngology
F. R. Cook, M.D.	Surgery
R. H. Cunningham, M.D.	Neurology
Charles T. Dade, M.D.	Dermatology
Edmund L. Dow, M.D.	Medicine
Jonathan Dwight, Jr., M.D.	Laryngology
J. Ives Edgerton, M.D.	Gynecology
Leonard W. Ely, M.D.	Orthopædic Surgery
Frank N. Emmert, M.D.	Laryngology
Albert W. Ferris, M.D.	Neurology
S. W. Fowler, M.D.	Venereal Diseases
Pedro F. Francke, M.D.	Surgery
Joseph E. Fuld, M.D.	Laryngology
Homer W. Gibney, M.D.	Orthopædic Surgery
L. M. Gibson, M.D.	Neurology
William C. Gilley, M.D.	Venereal Diseases
S. P. Goodhardt, M.D.	Neurology
Stuart Hart, M.D.	Neurology
W. P. Herrick, M.D.	Surgery
J. J. Higgins, M.D.	Gynecology
Edmund Y. Hill, M.D.	Venereal Diseases
John H. P. Hodgson, M.D.	Dermatology
Ward A. Holden, M.D.	Ophthalmology
Joseph Huber, M.D.	Diseases of Children
Lee M. Hurd, M.D.	Laryngology
S. E. Jelliffe, M. D.	Neurology

† On Barnard College Foundation.

John M. Kennedy, M.D	Gynecology
B. E. Krystall, M.D	Neurolog
John Leshure, M.D	Laryngology
John J. McCoy, M.D	Laryngology
James P. McEvoy, M.D	Laryngology
Ferdinand S. McHale, M.D	Diseases of Children
E. Pierre Mallett, M.D	Gynecology
George H. Mallett, M.D	Gynecology
H. E. Meeker, M.D	Surgery
Alfred Michaelis, M.D	Otology
Jackson M. Mills, M.D	Ophthalmology
G. E. Neuhaus, M.D	Neurology
Frank R. Oastler, M.D	Gynecology
Charles I. Proben, M.D	Gynecology
W. S. Reynolds, M.D	Venereal Diseases
A. Rovinsky, M.D	Neurology
Arthur M. Shrady, M.D	Medicine
Louis M. Silver, M.D	Diseases of Children
Paul F. Sondern, M.D	Laryngology
Bernard Sour, M.D	Diseases of Children
John B. Stein, M.D	Venereal Diseases
Benjamin W. Stiefel, M.D	Gynecology
A. J. Taylor, M.D	Surgery
Allan G. Terrell, M.D	Otology
Samuel W. Thurber, M.D	Laryngology
Walter Timme, M.D	Neurology
W. D. Trenwith, M.D	Venereal Diseases
Henry H. Tyson, M.D	Ophthalmology
Charlton Wallace, M.D	Orthopædic Surgery
Newton B. Waller, M.D	Orthopædic Surgery
Louis R. Welzmiller, M.D	Orthopædic Surgery
Edward L. Williamson, M.D	Venereal Diseases

Emeritus Officers

Thomas M. Markoe, M.D	Emeritus Professor of Surgery
T. Gaillard Thomas, M.D	Emeritus Professor of Obstetrics and Gynecology
John T. Metcalfe, M.D	Emeritus Professor of Clinical Medicine
Edward Curtis, M.D.	Emeritus Professor of Materia Medica and Therapeutics
John D. Quackenbos, A.M., M.D	Emeritus Professor of Rhetoric
Nathaniel Lord Britton, Ph.D	Emeritus Professor of Botany
John Ordronaux, M.D., LL.D.	Emeritus Professor of Medical Jurisprudence
James W. McLane, M.D	Emeritus Professor of Obstetrics
William H. Draper, M.D	Emeritus Professor of Clinical Medicine
George H. Baker, A.M	Librarian Emeritus

Advisory Committee on Art

Charles F. McKim
Daniel C. French
Edwin H. Blashfield

Columbia University in the City of New York

GENERAL STATEMENT

On October 31, 1754, during the reign of George II., His Majesty's Letters Patent under the Great Seal of the Province were issued, incorporating THE GOVERNORS OF THE COLLEGE OF THE PROVINCE OF NEW YORK IN THE CITY OF NEW YORK IN AMERICA, and providing for the establishment of a College to be known as "Kings College," "for the Instruction and Education of Youth in the Learned Languages and in the Liberal Arts and Sciences." The interpretation placed upon this clause of the Charter, at the time, is shown by the original announcement of Kings College in 1754, which, in part, reads as follows: "Vth and Lastly, A serious, virtuous, and industrious Course of Life being first provided for, it is further the Design of this College, to instruct and perfect the Youth in the learned Languages, and in the Arts of Reasoning exactly, of Writing correctly, and Speaking eloquently: And in the Arts of Numbering and Measuring, of Surveying and Navigation, of Geography and History, of Husbandry, Commerce and Government; and in the Knowledge of all Nature in the Heavens above us, and in the Air, Water and Earth around us, and the various Kinds of Meteors, Stones, Mines and Minerals, Plants and Animals, and of every Thing useful for the Comfort, the Convenience, and Elegance of Life, in the chief Manufactures relating to any of these things: And finally, to lead them from the Study of Nature, to the Knowledge of themselves, and of the God of Nature, and their Duty to Him, themselves, and one another; and every Thing that can contribute to their true Happiness both here and hereafter."

The Charter named as Governors the Archbishop of Canterbury, the Governor of the Province, certain officers of the Crown, ex-officio, the Rector of Trinity Church, and the Ministers of the Reformed Dutch, Lutheran, French, and Presbyterian Churches, for the time being, and twenty-four residents of the city. Under this charter, Kings College was founded, continuing to be known by that name until 1784. An additional charter was granted May 30, 1755, authorizing the appointment of a Professor of Divinity by the Reformed Protestant Dutch Church.

Upon the convening of the Legislature of the State of New York in 1784, an act was passed incorporating the "REGENTS OF THE UNIVERSITY OF THE STATE OF NEW YORK," and vesting the property of Kings College in the Regents. The act also changed the name of the College to Columbia College.

In 1787, this act was repealed, and a statute was passed enacting "that the Charter heretofore granted to the Governors of the College of the Province of New York in the City of New York in America, dated the thirty-first day of October, in the year of our Lord one thousand seven hundred and fifty-four, shall be and hereby is fully and absolutely ratified and confirmed, in all respects, except that the College thereby established shall be henceforth called Columbia College"; and "that the style of the said corporation shall be, The Trustees of Columbia College in the City of New York." Certain other amendments also were made in the charter to conform to the new conditions.

In 1810, the charter was again amended in certain particulars at the request of the Trustees, and re-enacted, but the corporate title remained and still continues unchanged. The title to all corporate property is vested in a board of twenty-four Trustees, whose term of office is for life, and who form a self-perpetuating body, exercising the power of appointment as to all officers of instruction and administration.

On February 3, 1896, the Trustees adopted the following resolution:

> "RESOLVED, That in all official publications hereafter issued by or under authority of the Trustees, all the departments of instruction and research maintained and managed by this corporation may, for convenience, be designated collectively as 'Columbia University in the City of New York,' or 'the University'; and the School of Arts, as the same is now known and described, may hereafter be designated as 'Columbia College,' or 'the College.'"

The President has charge of the Educational administration of the University and is Chairman of the University Council and of every faculty established by the Trustees.* The principal administrative officers, other than the President, are the Deans of the several faculties, the Secretary of the University, the Librarian, the Registrar, the Bursar, and the Superintendent of Buildings and Grounds.

The University Council is a representative body consisting of the President, the Dean, and the Secretary of the College, ex-officio, and the Dean and one elected member from each of the faculties of the University. Subject to the reserved power of control by the Trustees, the University Council has charge of the general educational interests of the University and of all matters affecting more than one faculty.

I. THE COLLEGES

a. COLUMBIA COLLEGE offers a course of four years, leading to the degree of Bachelor of Arts. Candidates for admission to the College must be at least fifteen years of age, and pass an examination on prescribed subjects. The curriculum offers a wide range of electives, both literary and scientific, making it possible for the student to elect such courses during his first three years as will fit him either for the professional course he may intend to pursue, or for advanced work under any of the non-professional faculties. During the senior year the student may study under any of the faculties of the University. The degree of Bachelor of Arts is conferred upon its graduates upon the recommendation of the Faculty of Columbia College.

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* Communications for the President should be addressed to him at the University.

b. BARNARD COLLEGE, founded in 1889, is an independent corporation whose grounds adjoin those of the University. As an undergraduate college for women, however, it bears the same relation* to the educational system of Columbia University as does Columbia College as an undergraduate college for men. The requirements for admission and the standard of scholarship are of the same grade. The students receive their instruction in the Barnard College buildings, except that for the time being members of the senior class may attend certain advanced courses in the University. The degree of Bachelor of Arts is conferred upon its graduates by the University upon the recommendation of the Faculty of Barnard College, of which the President of the University is, ex-officio, chairman.

II. THE UNIVERSITY

In a technical sense, the Faculties of Law, Medicine, Philosophy, Political Science, Pure Science, and Applied Science, taken together, constitute the University. These faculties offer advanced courses of study and investigation, respectively, in (*a*) private or municipal law, (*b*) medicine, (*c*) philosophy, education, philology, and letters, (*d*) history, economics, and public law, (*e*) mathematics and natural science, and (*f*) applied science. Courses of study under all of these faculties are open to members of the senior class in the College and also to all students who have successfully pursued an equivalent course of undergraduate study to the close of the junior year. These courses lead, through the bachelor's degree, to the university degrees of Master of Arts and Doctor of Philosophy. The degree of Master of Laws is also conferred for advanced work in law done under the Faculties of Law and Political Science together.

A. The Non-Professional Schools

THE FACULTY OF PHILOSOPHY offers advanced courses and opportunities for original research in philosophy and education, psychology, Greek, and Latin (including Archæology and Epigraphy), English, comparative literature, music, and the Germanic, the Romance, and the Oriental Languages. Through the Teachers College, the opportunities for research in education are very great.

THE FACULTY OF POLITICAL SCIENCE offers advanced courses and opportunities for original research in political and social science, including history, economics, and public law.

THE FACULTY OF PURE SCIENCE offers advanced courses and opportunities for original research in mathematics, mechanics, and electro-mechanics, astronomy, physics, chemistry, mineralogy, geology, zoölogy, botany, physiology, anatomy, and bacteriology.

THE FACULTY OF APPLIED SCIENCE offers advanced courses and opportunities for original research in mining, metallurgy, engineering (civil, electrical, mechanical, and sanitary), and architecture.

B. The Professional Schools

THE FACULTIES OF LAW, MEDICINE, AND APPLIED SCIENCE conduct, respectively, the professional schools of Law, Medicine, and Mines, Chemistry,

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* By virtue of the agreement between the Trustees of Columbia College in the City of New York and the Trustees of Barnard College, dated January 19, 1900.

Engineering, and Architecture, to which students are admitted as candidates for professional degrees on terms prescribed by the faculties concerned.

THE SCHOOL OF LAW, established in 1858, offers a course of three years in the principles and practice of private and public law, leading to the degree of Bachelor of Laws.

THE COLLEGE OF PHYSICIANS AND SURGEONS, founded in 1807, offers a course of four years in the principles and practice of medicine and surgery, leading to the degree of Doctor of Medicine.

THE SCHOOL OF MINES, established in 1864, offers courses of study, each of four years, leading to a professional degree, in mining engineering and in metallurgy.

THE SCHOOLS OF CHEMISTRY, ENGINEERING, AND ARCHITECTURE, set off from the School of Mines in 1896, offer, respectively, courses of study, each of four years, leading to an appropriate professional degree, in analytical and applied chemistry; in civil, sanitary, electrical, and mechanical engineering, and in architecture.

TEACHERS COLLEGE, founded in 1888 and chartered in 1889, was included in the University in 1898. It is still an independent corporation, its trustees continuing to assume the entire financial responsibility for its maintenance. It offers courses in the History and Philosophy of Education and the Theory and Practice of Teaching, and takes academic rank in the University system as a professional school for teachers. Its four-year courses lead to diplomas in Elementary and in Kindergarten teaching; its two-year courses, to the diploma in Fine Arts, Domestic Art, Domestic Science, and Manual Training. Graduate courses lead to the Secondary Diploma and the Higher Diploma. Teachers College offers, also, a two-year collegiate course preparatory to the two-year professional courses. Under certain conditions, seniors in Columbia College or Barnard College may obtain the secondary diploma at the time of receiving the first degree; all courses in Teachers College Department of Education may be counted toward the degree of Bachelor of Arts, Master of Arts, or Doctor of Philosophy.

The division of the University into faculties and schools neither controls nor limits the student in his freedom of electing, under one or several of the faculties, courses that lead to the university degrees of Master of Arts and Doctor of Philosophy. The degree of Master of Laws is also a university degree, but for this degree the choice of the student is restricted to subjects under the two Faculties of Law and Political Science. All of these degrees are granted upon the recommendation of the University Council.

The professional degrees are Bachelor of Laws, Doctor of Medicine, Bachelor of Science. Engineer of Mines, Metallurgical Engineer, Civil Engineer. Electrical Engineer, and Mechanical Engineer. These degrees are conferred upon the recommendation of the Faculties of Law, Medicine, and Applied Science, respectively.

All Teachers College diplomas are conferred by the University upon the recommendation of the Faculty of Teachers College, of which the President of the University is, ex officio, chairman.

The degrees of Master of Arts, Master of Science, Doctor of Laws, Doctor of Sacred Theology, and Doctor of Letters are conferred *honoris causa* by the Trustees at their discretion.

Summary

In the following pages will be found a statement of the method of entering the University, the cost of tuition, the endowments for the benefit of students, a statement of the special funds held by the Trustees, and the privileges open to students in affiliated institutions.

The scope of instruction given in Columbia University is indicated broadly by the statements of the departments of instruction, which are given in alphabetical order; the courses offered for the current academic year in each are stated in detail, with a brief summary of the equipment of the department for the work it undertakes to do.

Following these details will be found:

- The requirements for the university degrees,
- The organization of the several schools, together with the requirements for the various degrees under the control of separate schools,
- Statements concerning Barnard College, Teachers College, and the Summer Session,
- The publications of the University,
- Degrees conferred,
- Lists of fellows, scholars, and honor men,
- Directory of officers and students,
- Calendar for the academic year.

The work of the University was begun at Morningside Heights, October 4, 1897.

ADMISSION

ENTRANCE EXAMINATIONS

Attention is called to the examinations to be conducted by the College Entrance Examination Board for the Middle States and Maryland. Columbia University will accept the certificates issued by this Board in all subjects which they cover. Information in regard to the places, times, and subjects of the examinations to be conducted by the Board may be obtained from the Secretary of the University upon application.

There are no examinations for admission to the Schools of Law, Medicine, Political Science, Philosophy, and Pure Science, or for admission to the graduate courses under the Faculties of Applied Science and Teachers College. For the requirements for admission to these departments see the Table of Contents.

Examinations for admission to Columbia College, Barnard College, Teachers College (Collegiate Course), and the Schools of Applied Science are conducted at Columbia University twice each year by the University Committee on Entrance Examinations. These examinations begin on the Monday following the second Wednesday in June and on the last Monday in September. In 1901, they will begin on June 17th and September 30th, respectively; in 1902, on June 16th and September 29th.

The University holds examinations in the following subjects, each subject counting for a specific number of points as below:

English	3
Elementary Mathematics	3
" Latin	4
" Greek	3
" French	2
" German	2
" History	1
" Physics	1
Spanish	2
Physiography	1
Freehand Drawing	1
Advanced Latin	1
" Greek	1
" French	1
" German	1
" History	1
" Mathematics	1
" Physics	1
Botany	1
Chemistry	1
Zoölogy	1

For a statement as to the combinations of subjects which may be offered by candidates for admission to the several Colleges and Schools mentioned above, see the Table of Contents.

The following scheme has been adopted for the entrance examinations in 1901:

For men	In the University Gymnasium
For women	In Barnard College Theatre

Mondays, June 17th and September 30th.

9.30–12	Algebra, elementary and advanced
1.30– 3.30	Geometry, plane and solid
4– 5.30	Zoölogy

Tuesdays, June 18th and October 1st.

9.30–12	Elementary Latin
1.30– 3.30	Elementary French
4– 5.30	Botany Trigonometry

Wednesdays, June 19th and October 2d.

9.30–12	Elementary Greek
1.30– 3.30	Elementary German
4– 5.30-	Chemistry

Thursdays, June 20th and October 3d.

9.30–12	English
1.30– 3.30	Elementary History
4– 5.30	Physics, elementary and advanced

Fridays, June 21st and October 4th.

9.30–11	Freehand Drawing Advanced History
11.30– 1.30	Spanish Advanced French Advanced Greek
2.30– 4.30	Physiography Advanced German Advanced Latin

Candidates must report to the officer in charge, in the examination room, fifteen minutes in advance of the first examination which they are to attend.

DEFINITIONS OF REQUIREMENTS

(Specimen question papers may be obtained from the Registrar upon application.)

Botany

The candidate should have received training by means of the laboratory method in

The structure and the more obvious features of the life history of at least ten types among the higher seed plants chosen from the more representative families (*e. g.*, Gramineæ, Liliaceæ, Salicaceæ, Ranunculaceæ, Rosaceæ, Leguminosæ, Cruciferæ, Solanaceæ, Labiatæ, Compositæ). In addition to these, the following types are recommended among the remaining lower groups of plants : pine, *Selaginella*, a fern, a moss (*Polytrichum* or *Funaria*), a leafy hepatic, *Marchantia*, a mildew (*Microsphæra*), an agaric, *Vaucheria*, *Spirogyra*, and a protophyte (preferably *Sphærella*).

Physiology. This work should cover the essential facts concerning irritability, photosynthesis, respiration, digestion, growth, and reproduction.

Ecology. The natural history of plants should receive considerable attention, and the behavior of plants toward environmental factors (especially light and moisture), dissemination, cross and close pollination, and the more important structural and physiological characteristics of plant formations (hydrophytes, halophytes, mesophytes, and xerophytes) should be included.

As in other biological work, it is desirable that elementary physics and chemistry should precede the study of botany or accompany it. As evidence of proper laboratory training and of satisfactory work, the note-book of the candidate should be submitted at the time of the examination. The note-book must bear the endorsement of the teacher, certifying that it is a true record of the candidate's work. If sent by mail, it should be addressed to the Assistant Secretary of Columbia University. Candidates desiring the return of their note-books should apply for them after the examination to the Assistant Secretary of the University. Note-books for the return of which no application is made will be preserved for one year only.

Chemistry

The non-metallic elements, as usually given in high-school text-books, together with an approved laboratory course of at least forty experiments actually performed at school by the candidate, as given in Remsen's or Armstrong and Norton's laboratory manual.

To fulfil the requirement of laboratory work in chemistry a candidate must submit at the time of the entrance examination in chemistry a note-book containing a record of the experiments which he has performed. A candidate unable to submit such a note-book will be considered ineligible for examination. The note-book must bear the endorsement of the teacher, certifying that it is a true record of the candidate's work. If sent by mail, it should be addressed to the Assistant Secretary of Columbia

University. Candidates desiring the return of their note-books should apply for them after the examination to the Assistant Secretary of the University. Note-books for the return of which no application is made will be preserved for one year only.

Drawing

A candidate must be able to draw and sketch correctly and with proper shading a simple geometrical figure or a group of geometrical solids, or to sketch a simple piece of machinery or a house with correct construction and accuracy of proportion, with a fair knowledge of the rules of perspective and light and shade as applied in freehand sketching. A candidate must also be able to reproduce from a flat copy with enlargement or reduction in size. For candidates for the School of Architecture, the object to be copied will usually be an ornament — an anthemion or acanthus leaf — or a design of iron scrollwork; for the other Schools of Applied Science, the subject will be chosen from machinery details or geometrical constructions; for Teachers College, from geometrical solids, still life, or simple plant forms.

A candidate who has had a fair amount of training in drawing and wishes to be excused from a formal examination in this subject may at the time of the entrance examinations submit drawings, especially systematic sets of drawings, executed at school. They should be accompanied by a certificate from his teacher to the effect that they are the candidate's own work. If they indicate a satisfactory proficiency, they will be accepted in lieu of the examination. Drawings thus submitted, if sent by mail, should be addressed to the Assistant Secretary of Columbia University.

English

No applicant will be accepted in English whose work is notably defective in point of spelling, grammar, idiom, punctuation, or division into paragraphs.

1. Reading and composition.—The candidate will be required to present evidence of a general knowledge of the subject-matter of the prescribed books, and to answer simple questions on the lives of their authors. The form of examination will usually be the writing of a paragraph or two on each of the several topics, to be chosen by the candidate from a considerable number — perhaps ten or fifteen — set before him in the examination paper. The treatment of these topics is designed to show the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of a part or the whole of this test, the candidate may present an exercise book,* properly certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

The candidate is expected to read intelligently all the books prescribed. He should read them as he reads other books; he is not expected to know them minutely, but to have freshly in mind their most important parts. In preparation for this part of the requirement, it is important that the candidate shall have been instructed in the fundamental principles of rhetoric.

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* Specific directions with regard to the preparation of such exercise books may be obtained by addressing the Secretary of Columbia University. *The Department does not return the exercise books after the examination.*

Candidates offering this part of the requirement as a preliminary subject should be prepared on the books prescribed for the year in which they propose to enter the University.

The books prescribed for this part of the examination are as follows:

In 1901 and 1902: Shakspere's Merchant of Venice; Pope's Iliad, Books I, IV, XXII, and XXIV; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; Scott's Ivanhoe; Cooper's Last of the Mohicans; Tennyson's Princess; Lowell's Vision of Sir Launfal; George Eliot's Silas Marner.

In 1903, 1904, and 1905: Shakspere's Merchant of Venice and Julius Cæsar; The Sir Roger de Coverley Papers in the Spectator; Goldsmith's Vicar of Wakefield; Coleridge's Ancient Mariner; Scott's Ivanhoe; Carlyle's Essay on Burns; Tennyson's Princess; Lowell's Vision of Sir Launfal; George Eliot's Silas Marner.

2. Study and composition.—This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon the subject-matter, the literary form, and the logical structure. The candidate may be required, in addition, to answer questions involving the essentials of English grammar, and questions on the leading facts in those periods of English literary history to which the prescribed works belong.

In connection with the reading and study of the required books, parallel or subsidiary reading should be encouraged, and a considerable amount of English poetry should be committed to memory. The essentials of English grammar should not be neglected in preparatory study.

The books prescribed for this part of the examination are as follows;

In 1901, 1902, 1903, 1904, and 1905: Shakspere's Macbeth; Milton's Lycidas, Comus, L'Allegro, and Il Penseroso; Burke's Speech on Conciliation with America; Macaulay's Essays on Milton and Addison.

French

Elementary

1. The translation at sight of ordinary nineteenth-century prose.

It is important that the passages set be rendered into clear and idiomatic English. It is believed that the power of translating at sight ordinary nineteenth-century prose can be acquired by reading not less than four hundred duodecimo pages from the works of at least three different authors. Not more than one half of this amount ought to be from works of fiction. This number of pages is to include not only prepared work but all sight reading done in class.

2. The translation from English into French of sentences or of a short connected passage, to test the candidate's familiarity with elementary grammar.

Elementary grammar is understood to include the conjugations of regular verbs, of the more frequent irregular verbs, such as aller, envoyer, tenir, pouvoir, voir, vouloir, dire, savoir, faire, and those belonging to the classes represented by ouvrir, dormir, connaitre, conduire, and craindre; and the forms and positions of personal pronouns, the uses of other pronouns and of possessive, demonstrative, and interrogative adjectives; the inflection of nouns and adjectives for gender and number, except rare cases; the uses of articles, and the partitive constructions.

NOTE.—Pronunciation should be carefully taught and pupils be trained to some extent to hear and understand spoken French. The writing of French from dictation is recommended as a useful exercise.

Advanced

1. The translation at sight of standard French.

It is important that the passages set be rendered into clear and idiomatic English. It is believed that the necessary proficiency in translation at sight can be acquired by reading, in addition to the elementary work, not less than six hundred duodecimo pages of prose and verse from the writings of at least four standard authors. A considerable part of the amount read should be carefully translated into idiomatic English.

2. The translation into French of a connected passage of English prose.

Candidates will be expected to show a thorough knowledge of accidence and familiarity with the essentials of French syntax, especially the uses of tenses, modes, prepositions, and conjunctions.

NOTE.—Careful attention should be paid to pronunciation and to the use of spoken French.

German

Elementary

1. Translation at sight of a passage of easy prose containing no rare words.

It is believed that the requisite facility can be acquired by reading not less than two hundred duodecimo pages of simple German.

2. The rudiments of grammar, and especially these topics: the declension of articles, adjectives, pronouns, and such nouns as are readily classified; the conjugation of weak and of the more usual strong verbs; the commoner prepositions; the simpler uses of the modal auxiliaries; the elementary rules of syntax and word order. The proficiency of the applicant will be tested by questions on the above topics and by the translation into German of simple English sentences.

NOTE.—Practice in pronunciation, in writing German from dictation, and in the use of simple German phrases in the classroom is recommended

Advanced

1. Translation at sight of ordinary German. It is believed that the requisite facility can be acquired by reading, in addition to the amount mentioned under elementary German, at least five hundred pages of classical and contemporary prose and poetry. It is recommended that not less than

one half of this reading be selected from the works of Lessing, Schiller, and Goethe.

2. Grammar. In addition to a thorough knowledge of accidence, of the elements of word-formation, and of the principal uses of prepositions and conjunctions, the candidate must be familiar with the essentials of German syntax, and particularly with the uses of modal auxiliaries, the subjunctive mode, and the infinitive. The proficiency of the applicant will be tested by questions on these topics, and by the translation into German of easy connected English prose.

NOTE.—Preparation for the advanced examination by candidates already thoroughly prepared for the elementary examination should occupy at least five recitation periods a week in the last year of the preparatory school, or an equivalent amount of work otherwise distributed. The grammar should be made the subject of careful study, and its rules should be applied in the classroom work by frequent practice in writing connected German, either in the form of paraphrases and abstracts of matter read, or in the form of independent translation of very easy English.

Greek

Elementary

1. Grammar and Attic prose.

A thorough knowledge of the common forms, idioms, and constructions and of the general grammatical principles of Attic prose Greek, to be tested by an examination on a prescribed portion of Xenophon (for the next three years, Xenophon's Anabasis, Books I and II). This test is to consist in part of questions, in part of simple sentences set for translation into Greek ; it may include also translation from Greek into English.

Translation at sight of a passage adapted to the proficiency of those who have read not less than 130 Teubner pages of Attic prose. The candidate is expected to show in his translation accurate knowledge of the forms and structure of the language, and an intelligent comprehension of the whole passage.

2. Homer.

Ability to translate a passage from some prescribed portion of the Homeric poems (for the next two years, Iliad, Book I and Book II, vv. 1–493), and to answer questions designed to test the candidate's understanding of the passage, as well as questions upon poetic forms, construction, and prosody.

Ability to translate at sight a passage of ordinary difficulty from the Iliad or Odyssey, with the aid of a vocabulary of the less usual words.

3. Composition.

Ability to translate into Attic prose a passage of connected English narrative employing the more common words and constructions of some prescribed text. (For the next three years a candidate will be allowed his choice between a passage based on Xenophon's Anabasis, Books I and II, and a passage based on Xenophon's Cyropædia, Book I, Chaps. I to V, inclusive.)

NOTE.—Throughout the preparatory course pupils should be constantly guided in proper methods of reading, and should be trained to read the Greek understandingly, as Greek, before attempting to render it into idiomatic English. There should also be constant practice in reading aloud, with due expression, and in hearing the language read. It is further recommended that the study of composition should be continued through the entire period of preparation.

Advanced

Candidates offering Greek as an advanced subject must present the equivalent of the course known as Greek **B** (see courses given by the Department of Greek). In Homer, for which no equivalent will ordinarily be accepted, the minimum requirement will be 1600 lines in addition to the amount offered for the elementary examination. The candidate must also offer the eight orations of Lysias in Morgan's edition, or an equivalent amount of similar Greek, and in prose composition at least twenty exercises in the writing of connected narrative prose. The exercises in Part III of Allinson's Greek Prose Composition will show the grade of preparation demanded.

History

Elementary

Candidates offering history as an elementary subject may present themselves for examination either upon Greek and Roman history or upon English and American history. They will not be permitted to offer both of these groups as elementary subjects.

First Group:

1. Greek history to the death of Alexander, with due reference to Greek life, literature, and art.
2. Roman history to the accession of Commodus, with due reference to literature and government.

Second Group:

3. English history, with due reference to social and political development.
4. American history, with the elements of civil government.

Candidates for admission to the Schools of Applied Science will be permitted, in 1901, to offer American history alone in fulfilment of the requirement in history.

NOTE.—For preparation in each of the two historical fields offered, a course of study equivalent to at least three lessons a week for one year will be needful. On examination a candidate must show such general knowledge of each field as may be acquired from the study of an accurate text-book of not less than three hundred pages. Since, however, the examination will be so framed as to require comparison and the use of judgment rather than mere exercise of memory on the part of the pupil, it is recommended that the teacher prescribe a course of supplementary reading of not less than five hundred pages dealing with the more important periods and events in both of the historical fields offered. Geographical knowledge will be tested by requiring the location of places and movements on an outline map.

Advanced

Any one of the four courses which follow:

1. Greek history to the destruction of Corinth, and Roman history to the death of Constantine. (Open to candidates only who have offered English and American history as an elementary subject.)
2. English and American history. (Open to candidates only who have offered Greek and Roman history as an elementary subject.)

3. European history from the Germanic conquests to the beginning of the seventeenth century.
4. A year's study of any one of the four historical fields defined under Elementary History and not already offered by the candidate, together with a year's detailed study of a limited period within that field (*e.g.*, the Spartan and Theban supremacies, the period of the Punic wars, the Stuart period, the transition from the American colonial to the federal system) selected with the approval of the Department of History.

The examination in the second part of 4 will be specially adapted to the particular period selected.

In every case the candidate must show on examination such an acquaintance with the whole field as may be gained from the study of good text-books together with substantial parallel readings, and such a detailed knowledge of some part of the field as may be gained from suitable topical study.

As further evidence of proficiency, satisfactory written work, done at school and duly certified by the teacher as to independent preparation, must be submitted. It must be presented in the form of a note-book, or bound collection of notes, containing not less than five thousand words on each historical field offered, and must show practice in some of the following exercises:

(*a*) Notes and digests of reading outside of the text-books.
(*b*) Written recitations requiring the use of judgment, and the application to new questions of knowledge already gained.
(*c*) Written parallels between historical characters, events, or periods.
(*d*) Brief studies of topics limited in scope, prepared outside the classroom and illustrated by some reference to contemporary material.
(*e*) Historical maps or charts showing explorations, migrations, conquests, territorial changes, or social phenomena.

The written work must be sent to the Assistant Secretary of Columbia University, two weeks before the entrance examination begins.

Latin

Elementary

1. Cicero and Latin grammar.

The translation of passages selected from the portions of Cicero specified in 1 (*c*) (see Note below), with questions designed to test the candidate's understanding of the passages, and also questions on the subject-matter. The translation at sight of passages of not too great difficulty selected from other portions of Cicero's speeches. A thorough examination upon a prescribed portion of Cicero's speeches (for 1901 the 2d, 3d, and 4th orations against Catiline), directed to testing the candidate's mastery of the ordinary forms, constructions, and idioms of the language.

2. Vergil.

The translation of passages selected from the portions of Vergil specified in 1 (*d*) (see Note below), with questions designed to test the candidate's understanding of the passages, and also questions on the subject-matter.

The translation at sight of passages of not too great difficulty selected from other portions of Vergil.

3. Simple Latin at sight.

The translation at sight of passages selected from Nepos, Cæsar, and Ovid (see Note below), or from other simple prose and verse. In connection with the passages set for translation, questions may be asked on ordinary forms, constructions, and idioms, and also questions designed to test the candidate's understanding of the passages.

4. Latin prose composition.

The translation into Latin prose of a passage of connected English narrative. The passage set for translation will be based upon some portion of the prose works specified in the Note below and will be limited to the subject-matter of those works. The proficiency of the candidate will also be tested by his ability to translate into Latin short English sentences involving the use of ordinary constructions and idioms.

NOTE.—The preparatory course, on which the examinations will be based, is defined as follows:

1. The course should include:
   (*a*) Easy reading, included in or following a suitable introductory book, amounting to from 30 to 40 pages (the pages of the more recent Teubner text editions are taken as a standard in this statement);
   (*b*) Nepos and Cæsar, 90 to 120 pages;
   (*c*) Cicero, the speech on the Manilian Law, the four speeches against Catiline, and either the speech for Archias or the Fourteenth Philippic, with additional speeches at the option of the teacher, 90 to 120 pages in all;
   (*d*) Vergil, Æneid I–VI, with additional selections from Ovid and Vergil at the option of the teacher, 6000 to 8000 verses in all;
2. Throughout the preparatory course pupils should be constantly guided in proper methods of reading, and should be trained to read the Latin understandingly, as Latin, before undertaking to render it into idiomatic English. There should also be constant practice in reading aloud, with due expression, and in hearing the language read.
3. After the completion of the introductory lessons, a systematic study of Latin grammar, with practice in writing Latin, should be maintained throughout the course.

Advanced

Candidates offering Latin as an advanced subject must present the equivalent of the course known as Latin **A** (see courses given by the Department of Latin). This course comprises the reading of Cicero's De Senectute, a review of the syntax of the verb as contained in any standard grammar, and a knowledge of prose composition as represented by the second part of Daniells's New Latin Composition; also the reading of the first and third books of the Odes of Horace, with a satisfactory knowledge of the prosody.

Mathematics

Elementary

1. Algebra to quadratics.

Factors, common divisors and multiples, fractions, equations of the first degree with one or more unknown quantities, evolution, the doctrine of exponents, radicals, radical equations reducible to equations of the first degree, and putting problems into equations.

2. Algebra from quadratics.

Quadratic equations, equations with one or more unknown quantities that can be solved by the methods of quadratic equations, problems depending upon such equations, ratio and proportion, and the binomial theorem for positive entire exponents.

3. Plane geometry.

Plane geometry, including the solution of simple original exercises and numerical problems.

Advanced

1. Solid geometry.

Solid and spherical geometry, including the solution of simple original exercises.

2. Algebra.

Arithmetical and geometrical progressions, the principle of undetermined coefficients including its application to partial fractions and series, and the elementary principles of logarithms.

3. Plane trigonometry.

The elementary principles of logarithms, the use of tables of logarithms of numbers and of logarithms of trigonometric functions, the definitions, properties, and relations of the trigonometric functions, and the solution of right-angled and oblique-angled plane triangles.

Physics

Elementary

The equivalent of Hall and Bergen's text-book of physics, together with an approved laboratory course of at least forty experiments actually performed at school by the candidate.

To fulfil the requirement of laboratory work in physics a candidate must submit at the time of the entrance examination in physics a note-book containing a record of the experiments which he has performed. A candidate unable to submit such a note-book will be considered ineligible for examination. The note-book must bear the endorsement of the teacher, certifying that it is a true record of the candidate's work. If sent by mail, it should be addressed to the Assistant Secretary of Columbia University. Candidates desiring the return of their note-books should apply for them after the examination to the Assistant Secretary of the University. Note-books for the return of which no application is made will be preserved for one year only.

Advanced

Candidates offering physics as an advanced subject must have studied physics for a full year after satisfactorily completing the elementary requirement. The work during this time must be devoted to a more thorough and extensive study of the subjects previously covered in a general way. Besides class-work, it must include at least sixty experiments actually performed in the laboratory by the candidate. A laboratory note-book must be submitted at the time of the examination. It must contain a certificate from the teacher that it is a true record of the candidate's work. It will be returned to the candidate upon subsequent application to the Assistant Secretary of the University.

Physiography

The equivalent of Davis's Physical Geography, together with an approved laboratory and field course of at least forty exercises actually performed by the candidate.

The examination in physiography will consist of both a written and a practical test. The practical test will include the description, explanation, and comparison of geographical features shown in photographs, maps, and models. On this account *the examination in physiography will be held only in New York.* The candidate will be required to present at the time of his examination the original note-book in which he recorded, with dates, the steps and results of the observations which he made at school. This book, which should contain an index of subjects, must bear the endorsement of the teacher, certifying that it is a true record of the candidate's work.

Spanish

1. The translation at sight of ordinary Spanish prose.

It is important that the passages set be rendered into clear and idiomatic English. It is believed that the power of translating at sight ordinary prose can be acquired by reading not less than four hundred duodecimo pages from the works of at least three different authors. This number of pages is to include not only prepared work but all sight reading done in class.

2. The translation from English into Spanish of sentences of a short connected passage, to test the candidate's familiarity with elementary grammar.

Elementary grammar is understood to include the conjugation of regular and auxiliary verbs, and of the most frequent irregular verbs, such as *audar*, *creer*, *decir*, *hacer*, *ir*, *poder*, *poner*, *querer*, *saber*, *sentir*, *tener*, *venir*, *ver*; the forms and positions of personal pronouns, the uses of possessive, demonstrative, and interrogative pronouns and adjectives; the inflection of nouns and adjectives for gender and number; the principles of agreement and of simple phrase construction.

NOTE.—Pronunciation should be carefully taught and pupils be trained to some extent to hear and understand spoken Spanish. The writing of Spanish from dictation is recommended as a useful exercise.

Zoölogy

In general, zoölogy is not recommended as an entrance subject unless the study has been preceded or accompanied by that of physics and chemistry, which form the most desirable groundwork for collegiate courses in biology. The entrance examination in zoölogy is designed to test, first, the candidate's practical acquaintance with the natural history, structure, and relationships of some of the leading types of animals, and, second, his knowledge of the more essential facts of physiology.

Practical Zoölogy. A practical examination on at least ten common animal types, and the presentation by the candidate of a laboratory note-book, certified by the teacher, as evidence of a laboratory course actually performed. Examples of the types suggested are the frog, fish, mollusk, insects, crustaceans, annelid, starfish, hydroid (Hydra) and protozoan. In the examination less weight is laid on a knowledge of anatomical *minutiæ* than on the ability to recognize the specimen and its allies, to indicate its relationships, and to point out the leading features of its life-history, organization, and physiology.

Elementary Physiology. The nature of foods and their history in the body; the essential facts of digestion, absorption, circulation, secretion, excretion, and respiration; the motor, nervous, and sensory functions; and the structure of the various organs by which these operations are performed. Martin's *Human Body* (briefer course) forms a suitable basis for this work; but teachers are recommended as far as possible to correlate the physiology of man and the higher animals with that of the lower forms studied in the course on practical zoölogy.

DIVISION OF EXAMINATIONS

A candidate for admission may present himself in June (but not in September) of the year preceding that in which he proposes to enter, for a preliminary examination. At such an examination he may offer any subject, or numbered part of a subject (see Definitions of Requirements above), in which his principal instructor certifies that he is prepared. Such subjects as he may pass at this preliminary examination will stand to his credit for a period not exceeding sixteen months. Candidates and their instructors are advised that it is in general undesirable to offer the whole of the elementary requirement in English, Mathematics, Latin, or Greek in the year preceding admission unless advanced work in the same subject is to be offered the following year.

In the year in which he proposes to enter, a candidate may divide his examinations between June and September (see Scheme of Examinations, page 16) in whatever manner he may wish.

EXAMINATIONS OUTSIDE OF NEW YORK

The University Committee on Entrance Examinations is authorized to make arrangements whereby examinations for admission may be held, when applied for, in other cities than New York. Such examinations are permitted only at the appointed examination time in June, and must be held at schools or other institutions previously designated by the Committee. Applications to hold such examinations must be made not later than May 15 of the same year. For information as to the cities in which examinations will be held in 1901, address the chairman of the University Committee on Entrance Examinations, Columbia University.

APPLICATION BLANK

At least one week before the first day of the entrance examinations, a candidate for admission must file an application, endorsed by his principal instructor, containing a definite statement of the subjects which he is qualified to offer. A candidate for admission to Columbia College or one of the Schools of Applied Science should send his application by mail (or deliver it in person) to the Registrar, Columbia University; for Barnard College, to the Bursar of Barnard College; and for Teachers College, to the Cashier, Teachers College.

Blank forms of application may be obtained by addressing the Assistant Secretary of Columbia University.

Candidates dividing their examinations between June and September must file a new application for the September examinations. It will not be necessary, however, for the instructor to endorse the latter application if the candidate wishes to offer at the September examinations only such subjects as he has offered previously.

The applications of all candidates wishing to be examined in June, 1901, should be filed on or before Monday, June 10, and those of all candidates wishing to be examined in September should be filed on or before Monday, September 23. Applications received after these dates may fail of consideration. *In the case of a candidate expecting to be examined outside of New York, the application must be filed one week earlier.*

EXAMINATION FEE

Every candidate for admission is required to pay an examination fee of $5.00. This fee should accompany the candidate's first application for examination (see above), and if in the form of a check or money order, should be drawn to the order of Columbia University. A receipt for this fee will be furnished to the candidate, which should be carefully preserved, and presented as a credential upon the request of the examiners. A candidate unable to show his receipt may be excluded from the examinations.

ADMISSION OF WOMEN

None of the professional schools of the University corporation are open to women.

For the regulations for admission to Barnard College, see the Table of Contents.

Women holding the first degree are permitted to register under the Faculties of Political Science, Philosophy, and Pure Science, as candidates for the degrees of A.M. and Ph.D., or as special students, and to pursue certain of the courses of study offered by them upon the same terms as men. For their assistance and advice in matters other than purely educational the Trustees have appointed an Adviser of Graduate Women Students, Mrs. Edith R. Darrach, who may be consulted or addressed at her office, No. 414 West Hall.

AUDITORS

Certain courses of lectures are open to the public, men and women alike, on payment of an auditor's fee. No auditor will be admitted to any course without the consent of the instructor, previously obtained; auditors' tickets must be procured from the Registrar of the University, and shown to the instructors in charge of the courses for which they are issued.

MATRICULATION AND REGISTRATION

No student is permitted to attend any academic exercise until he has complied with the regulations in regard to matriculation and registration.

Every student will be required, as a condition of admission to the College or to any School, to matriculate on a blank prepared for the purpose, upon which he shall state his name, place of abode, post-office address, and, if he is under twenty-one years of age, the name, place of abode, and post-office address of his father or guardian, and such other information as may be from time to time required.

Students entering Barnard College should register and pay their fees at Barnard College.

Students entering Teachers College should register and pay their fees at Teachers College. Information regarding fees, etc., will be found in the Announcement of Teachers College.

Students entering the College of Physicians and Surgeons should register and pay their fees at the offices of the Assistant Registrar, and Assistant Bursar, College of Physicians and Surgeons, 437 West 59th Street.

All other students must register in person in the office of the Registrar, Room 109, Library Building, and pay their fees to the Bursar, Room 109, Library Building.

Withdrawal

Students are requested, in case of withdrawal from the University during the academic year, to notify the Registrar.

FEES

The regulations in regard to fees are as follows:

For Matriculation[*]:		$ 5
For Tuition:		
For candidates for a degree.		
In the College[†]	per annum	150
In the School of Law	"	150
In the College of Physicians and Surgeons	"	200
In the Schools of Mines, Chemistry, Engineering, and Architecture[‡]	"	200
In the School of Political Science	"	150
In the School of Philosophy	"	150
In the School of Pure Science	"	200
For candidates for the degrees of Master of Arts and Doctor of Philosophy	"	150

The maximum fee for the degrees of Master of Arts and Doctor of Philosophy is, respectively, $150 and $300. (If a student has paid tuition fees to the University as a candidate for A.M., and later registers as a candidate for Ph.D., the amount of such payment will be credited toward the maximum fee for the latter degree.)

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[*] This will be covered by the payment of an entrance examination fee.

[†] Seniors taking the first year in the Medical School or in the Schools of Mines, Chemistry, Engineering, and Architecture pay the fee required in those schools, $200.

[‡] Candidates for admission to advanced standing who attend the Summer School in Surveying are required to pay therefor a fee of $35.

For students pursuing partial courses, at the rate of $15 per annum for each hour of attendance per week on lectures or recitations, with a maximum fee of	$150
except that in the Schools of Pure Science and Applied Science the maximum fee is	200
For auditors, at the rate of $20 per annum for each hour of attendance per week on lectures or recitations, with a maximum fee of	200

For Examinations:

At unusual times	5
For the degree of Bachelor of Arts	15
For any professional or technical degree	25
For the degree of Master of Arts	25
For the degree of Doctor of Philosophy	35
For the degree of Master of Laws	25

For Use of the Gymnasium:

All men students except those of the College of Physicians and Surgeons are required to pay an annual gymnasium fee of	7

This entitles them to a locker and to the use of the Gymnasium and the baths, including all necessary laundry service.

Special Fees in the College of Physicians and Surgeons

For all Students:

Dissecting material, per "part"	1

For special students:

At the rate for each course of Didactic lectures in Anatomy; Physiology; Physics and Chemistry; Materia Medica; Therapeutics and Hygiene; Obstetrics and the Diseases of Women; Surgery; Pathology and Practical Medicine, including the Diseases of the Mind and Nervous System, of	20
Dissection	10
Practical chemistry including chemicals and breakage, per course,	25
Laboratory course in pathology and pathological histology, including materials	25
Laboratory fee for special instruction in pathology, histology, or bacteriology, per month	25
Operative surgery on the cadaver, including materials, per course	20

For other special courses the fees must be specially arranged for with the instructors.

The clinical lectures at the Vanderbilt Clinic are free to matriculates who do not take the regular curriculum.

The public clinical lectures, and demonstrations of pathological anatomy, which are given at the hospitals by officers of the University, are free to all matriculates.

For graduate students in the Schools of Applied Science :

For the use of the cabinets only	$25
For the use of the drawing academy only	25
For the use of the laboratories or any of them	50

The President and Treasurer are authorized to determine the fees to be paid in special cases, for partial attendance, upon the basis of the fees hereinbefore specified.

Payment of Fees*

The matriculation fee shall be paid before the entrance examination. Examination fees shall be paid in all cases before examination.

Annual tuition fees shall be paid in equal instalments on or before the last Saturday of October, and on or before the third Saturday in February in each academic year, except that whenever the total amount of a student's tuition fees shall not exceed one hundred dollars, the full amount shall be paid at entrance.

No candidate for a degree in any school shall be entitled to receive the same until he shall have discharged all his dues to the University.

Students who have taken the degree of Doctor of Philosophy in this University may, with the consent of the University Council, continue their researches in the laboratories or Library of the University without the payment of tuition fees.

Comparative Statement of Students' Expenses for the Academic Year, October to June

BASED ON STUDENTS' STATEMENTS

	Low	Average	Liberal
Matriculation Fee (First Year)	$ 5	$ 5	$ 5
Tuition Fee	150	150	150
Gymnasium Fee	7	7	7
Books	15	30	40 up
College Incidentals	—	15	50 "
Room (32 weeks)	48	112	160 "
Board (32 weeks)	112	128	192 "
Clothes and Washing	35	75	125 "
All other Expenses	15	25	100 "
Total	$387	$547	$829 up

In the case of students in the Schools of Medicine, Applied Science, and Pure Science, $50 for tuition should be added, the fee in those schools being $200.

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* For information as to the offices at which students of the College of Physicians and Surgeons, Barnard College, and Teachers College should pay their fees see p. 29.

COMMITTEE ON EMPLOYMENT FOR STUDENTS

The University Council has constituted a Standing Committee on Employment for Students, consisting at present of the following members:

JAMES F. KEMP	*Faculty of Pure Science, Chairman*
THOMAS S. FISKE	*Faculty of the College*
GEORGE S. HUNTINGTON	*Faculty of Medicine*
FRANCIS M. BURDICK	*Faculty of Law*
FREDERICK R. HUTTON	*Faculty of Applied Science*
FRANKLIN H. GIDDINGS	*Faculty of Political Science*
HENRY A. TODD	*Faculty of Philosophy*
ALBERT BRITT	*Secretary*

It is the design of the Committee to put students, desiring to work their way through college, especially those coming from elsewhere than New York or the immediate vicinity, in the way of earning enough for their partial or complete support, or if possible to extend assistance to them in other ways, while they are pursuing their studies here. It is believed that many opportunities may be offered to students of this class if the fact of their desire to obtain employment is made known. Some of the openings likely to be available are: private tutoring, translating, copying of various sorts, teaching in evening schools, travelling companions, stenography, and typewriting. All communications should be addressed to the Committee.

All the heads of clinics in the Medical School have consented to give advice without charge to students who present cards of introduction from the Committee. Such visitors are received as a general rule during office hours at private offices. This insures to students who need it the best medical advice in the city.

APPOINTMENT COMMITTEE

The Appointment Committee instituted by authority of a resolution of the University Council, passed April 19, 1898, consists at present of the following members:

JAMES HULME CANFIELD, A.M., LL.D	*Chairman* *Librarian of the University*
FREDERICK R. HUTTON, E.M., Ph.D.	*Professor of Mechanical Engineering*
EDWIN R. A. SELIGMAN, Ph.D.	*Professor of Political Economy and Finance*
JAMES MCKEEN CATTELL, Ph.D	*Professor of Psychology*
HENRY ALFRED TODD, Ph.D	*Professor of Romance Philology*
GEORGE W. KIRCHWEY, A.B	*Professor of Law*
GEORGE RICE CARPENTER, A.B.	*Professor of Rhetoric and English Composition*
JAMES RIGNALL WHEELER, Ph.D	*Professor of Greek*
CALVIN THOMAS, A.M.,	*Gebhard Professor of the Germanic Languages and Literatures*
JAMES EARL RUSSELL, Ph.D	*Professor of the History of Education*

The duty of the Committee is to recommend graduates of the College or University for teaching or other positions, and to assist competent graduates to obtain such positions.

The Committee keep classified lists of those who wish employment, and will be glad to be informed promptly of present or prospective vacancies in positions for which college-trained men or women are eligible.

No fees are charged for any service rendered by the Committee.

Communications in regard to vacancies and recommendations of suitable candidates for the same should be addressed to the Chairman of the Appointment Committee, Library, Columbia University, New York.

FELLOWSHIPS, SCHOLARSHIPS, AND OTHER PROVISION FOR THE ASSISTANCE AND REWARD OF STUDENTS

NOTE.—Unless otherwise provided, all stipends of Fellows and Scholars shall be paid in equal semi-annual instalments on the last Saturday in October and the third Saturday in February of each year.

Fellows and Scholars are required to pay all fees for matriculation, tuition, graduation, and for the use of the Gymnasium.

Fellowship Regulations

No Fellow shall be allowed to accept remunerative employment except by permission of the President, and the acceptance of any such employment, without such permission, shall operate to vacate the fellowship.

All Fellows, except as hereinbefore provided, shall be required to pursue their studies during the term of their fellowship at the University, unless permission be granted by the President to study elsewhere.

All Fellows shall be governed by such rules and regulations, not inconsistent with the statutes, as may be prescribed by the Council.

University Fellowships

Eighteen fellowships, of the value of $650 each, known as "University Fellowships," are awarded by the Council to those applicants who give evidence of special fitness to pursue courses of higher study and original investigation, the competition to be open to graduates of all colleges and scientific schools. Vacancies occurring in any such fellowships shall be filled in the same manner in which original appointments are made.

Additional University Fellows may be appointed in cases where the original appointee waives the emolument of the fellowship while accepting the honor of the appointment, and in cases where a University Fellow desires reappointment without emolument.

Application should be made prior to March 1, in writing, on blanks that will be furnished for the purpose, and addressed to the President of Columbia University. Applications received later than March 1 may fail of consideration. The term of the fellowship is one year, dating from July 1. Residence should begin October 1.

The candidate must give evidence:

(*a*) of a liberal education, such as a diploma already granted, or about to be received from a college or scientific school of good repute;

(*b*) of decided fitness for a special line of study, such as an example of some scientific or literary work already performed;

(*c*) of upright character, such as a testimonial from some instructor.

Every holder of a fellowship will be expected to perform such duties as may be allotted to him in connection with his course of study, which course shall be such as to lead to the degree of Doctor of Philosophy. He will be expected to devote his time to the prosecution of special studies under the direction of the head of the department to which he belongs, and before the close of the academic year to give evidence of progress by the preparation of a thesis, the completion of a research, the delivery of a lecture, or by some other method. He must reside in New York or vicinity during the academic year.

No holder of a fellowship will be permitted to pursue a professional or technical course of study during his term. With the written approval of the President, but not otherwise, he may give instruction or assistance in any department of the University.

A Fellow may be reappointed at the end of a year for reasons of weight. No Fellow may be reappointed for more than two terms of one year each.

As these fellowships are awarded as honors, those who are disposed, for the benefit of others or for any other reason, to waive the pecuniary emolument may do so, and still have their names retained on the list of Fellows.

Tyndall Fellowship

A fellowship known as the "John Tyndall Fellowship for the Encouragement of Research in Physics" was endowed by John Tyndall, LL.D., Professor of Natural History in the Royal Institution of Great Britain, November 2, 1885, by a gift of $10,945.50 in trust, to apply the income in supporting or assisting "one or more American pupils who may have shown decided talents in physics, and preferably such as shall express the determination to devote their lives to the advancement of theoretic science and original investigations in that department of learning." This fellowship is awarded to some suitable person, who is either a graduate of or a student in the University, but not necessarily a candidate for a degree. Such Fellow shall be appointed by the Council upon the recommendation of the head of the department of Physics. Such appointments shall always be for the term of one year only, but the Fellow for the time being shall be eligible for appointment from year to year, upon like recommendation. The Fellow so appointed shall be entitled to receive during his term of office the net income of the capital sum constituting the endowment; and the Trustees guarantee that such net income will amount to at least $648 a year, being six per cent. upon $10,800, the fund presented to the University by Professor Tyndall.

Barnard Fellowship

A fellowship known as the "Barnard Fellowship for Encouraging Scientific Research" was endowed by the bequest of $10,000 left by President F. A. P. Barnard for the purpose of encouraging scientific research. The fellowship is of the annual value of $500, and is awarded to a graduate of the College or of the Schools of Applied Science or Pure Science, who has evinced decided aptness for physical investigation and who may be disposed to devote himself to such investigation for some years continuously. Such Fellow shall be appointed by the Council upon the joint recommendation of the faculties of the College, Applied Science, and Pure Science. Such appointment shall be for the term of one year only, but the Fellow, for the time being, shall be eligible to reappointment from year to year upon like joint recommendation. Nominations should be made to the President on or before April 1.

Duties of Tyndall and Barnard Fellows

It is the duty of a Barnard or John Tyndall Fellow to devote himself faithfully to the investigation of some subject in physical science at this University, or at some other in this country or abroad, under the supervision of some known physicist approved by the President and the head of the department of Physics. He shall make a report quarterly to the President, giving an account of the work in which he has been engaged during the three months preceding ; which report shall be certified by the physicist superintending and directing him. In case of failure faithfully to fulfil the obligations imposed upon him, such Fellow shall forfeit all privileges and emoluments conferred upon him by his appointment to the fellowship, and the Council may at any time declare the fellowship to be vacant.

Drisler Fellowship

A fellowship known as the "Henry Drisler Fellowship in Classical Philology," of the annual value of $500, was established in 1894 in commemoration of the semi-centennial in the service of the University of Henry Drisler, LL.D., of the Class of 1839, who held in the University the chairs of both Latin and Greek.

Applicants for this fellowship must be Bachelors of Arts of this University, or some other college or university of equivalent standing, and must have pursued the study of Greek and Latin throughout their undergraduate course. They must present testimonials from their instructors in Greek and Latin as to their zeal and success in the study of these languages, and must give evidence of fitness for a wider and more profound study of the same, and for independent research. Such evidence may be shown by the results of a special examination, or by the production of an essay or published treatise in some department of classical study. Applicants must also have a sufficient knowledge of French and German to use those languages readily in the prosecution of their studies, and must present a certificate of good moral character.

The appointment to the fellowship will be made by the University Council on the joint recommendation of the professors of Greek and Latin. The appointment shall be for one year, and the holder, for reasons of weight, may be reappointed ; but the fellowship shall not be held by the same person for more than three years.

The Fellow must study at this University under the direction of the professors of Greek and Latin, unless permitted by the Council to spend a year in some foreign university, or in the American School of Classical Studies at Athens.

Carl Schurz Fellowship

The "Carl Schurz Fellowship" for the study of the German Language and Literature is open to graduates of all colleges and scientific schools in good standing in this country and abroad, and will be awarded in every alternate year beginning July 1, 1902, by the University Council, upon the recommendation of the Professors of the Department of Germanic Languages and Literatures. The appointment shall be held, subject to such regulations as this Council may from time to time establish, for the term of one year. The Fellow so appointed shall be entitled to receive the net income of the capital sum of ten thousand dollars, constituting the endowment contributed by the German-American citizens of New York, in commemoration of the seventieth birthday of Carl Schurz, accruing during a period of two years preceding the appointment, and proportionately for any part of the term. The appointment may be renewed for reasons of weight for a further term of one year, but re-appointment shall not entitle the Fellow to any additional stipend.

Candidates for this fellowship must present testimonials as to their zeal and success in the study of German, and must give evidence of their fitness for a wider and more profound study of the language and literature and for independent research. Such fitness may be shown by an essay or published treatise. Candidates must also have a sufficient knowledge of Latin and French to use these languages readily in the prosecution of their studies, and must present a certificate of good moral character. The holder must study at Columbia University under the direction of the department of Germanic Languages and Literatures, unless permitted by the Council to continue his studies at some German university.

Class of '70 Fellowship

There is a fellowship known as the "Class of '70 Fellowship," of the annual value of $500, which, after the expiration of the term of the present incumbent, shall be filled by the Council, and shall be subject to such rules and regulations, not inconsistent with the Statutes, as may be prescribed by the Council.

Annual Fellowships

The Treasurer may receive gifts of money for fellowships to run for one year or more, provided that no fellowship shall be created for less than $500 per annum. Such fellowship shall be filled by the University Council, and shall be subject to such rules and regulations, not inconsistent with the Statutes, as may be prescribed by the Council.

University Scholarships

Thirty University scholarships are awarded annually to students under the Faculties of Political Science, Philosophy, and Pure Science. These scholarships are awarded under the following regulations, prepared by the authority of the University Council and with its approval:

1. The University scholarships are open to all graduates of colleges and scientific schools whose course of study has been such as to entitle them to be enrolled at Columbia as candidates for a university degree.

2. These scholarships are tenable for one academic year, with a possibility of renewal for one year longer. They are of an annual value of $150 each.

3. Applications for University scholarships should be made in writing, on blanks that will be furnished for the purpose, and addressed to the President of Columbia University. Applications must be filed not later than May 1. Should an unsuccessful applicant for a fellowship apply for a scholarship, the only information required from him will be that contained in the formal application for the fellowship.

4. The University scholarships will be awarded by the University Council at its regular meeting in May. The award will be made after applications have been examined and recommendations made by the Committee on University Scholarships. In making these recommendations the Committee will give preference to those candidates for University fellowships who have failed of appointment by the University Council after having been recommended for the same by any faculty or department.

5. University Scholars will be required to enroll themselves as candidates for a degree and to pursue a regular course of study leading thereto.

President's University Scholarships

In addition to the University scholarships, there are eight scholarships, each of the annual value of $150, known as the "President's University Scholarships." Such scholarships are for the term of one year, are filled by the University Council, and are governed in all respects by the regulations attached to the University scholarships established by the preceding section, and by such further regulations as may from time to time be hereafter adopted by the Trustees. The holders of such scholarships may be reappointed upon the expiration of their terms upon such conditions as may be prescribed in the regulations.

In case any one of said scholarships is not awarded in any year, or in case any scholarship shall become vacant otherwise than by the graduation of the incumbent, an additional Scholar may be appointed to fill such vacancy. The recipient of any such scholarship may, with the consent of the President, assign the income thereof to any properly qualified candidate without waiving his right to be designated as a President's University Scholar.

University Scholarships for Women

Four University scholarships known as the "Curtis University Scholarships," will be awarded annually to women students under the Faculties of Philosophy, Political Science, and Pure Science. These scholarships are awarded under the same regulations as those governing the University scholarships.

Pulitzer Scholarships

In 1893, the Hon. Joseph Pulitzer established a fund of $100,000 to enable deserving graduates of the New York City grammar schools to obtain a high-school preparation for college through the agency of Columbia College. Ten students a year are selected by competition for the Horace Mann School of

Teachers College, and these students as they are qualified for work in the University are given free tuition for four years either in the College or in any of the schools except the Medical School. During the entire term of their high-school and college or university course, each of these students receives from Mr. Pulitzer the sum of $250 per annum. For details in relation to the competition for these scholarships, address the Principal of the Horace Mann High School, 120th Street, Morningside Heights, New York City.

National Society of the Sons of the American Revolution Medal

The National Society of the Sons of the American Revolution offers a silver medal under the following regulations:

1. Competition shall be open to members of the senior class in the College, and to first-year students, not graduates of the College, studying under any of the faculties of the University.
2. Each essay must contain not less than 1600 and not more than 2000 words and shall be upon the subject: "The Principles Fought for in the War of the Revolution."
3. A typewritten copy of each essay must be presented to the President not later than May 1.
4. The Committee of Award shall consist of the professors giving instruction in American History.
5. The prize shall in no case be awarded to an essay defective in English composition.

The award, if made, will be announced by the President at Commencement.

A similar tender has been made to the principal colleges of the country, and the essays receiving the silver medals will be submitted to a committee of the National Society in competition for a gold medal to be awarded to the writer of the essay deemed most meritorious.

Annual Scholarships

The Treasurer may receive gifts of money for scholarships for one or more years, provided that no such scholarship shall be for a less sum than the annual tuition fee of the College or of the school in which it is provided. Such scholarships shall be filled by the Faculty under whose care they properly come, and the Scholars holding them shall pay all fees.

Bunner Medal

The H. C. Bunner Gold Medal, provided for by the interest upon a fund of one thousand dollars, established in November, 1896, by the friends of the late Henry Cuyler Bunner, is awarded annually at Commencement to the candidate for a Columbia degree who shall present the best essay on an assigned subject in American literature. Essays must be submitted to the President on or before May 1. The award will be made by a committee to be appointed by the President. The subject for the essay to be handed in on May 1, 1901, is "American Humor Prior to 1870"; for 1902, "Abraham Lincoln as a Man of Letters"; for 1903 "Literary Influences that affected Hawthorne and Poe."

Barnard Medal

A gold medal established by the provisions of the will of President Barnard and endowed by him, known as the "Barnard Medal for Meritorious Service to Science," is awarded at Commencement at the close of every quinquennial period dating from the 17th day of July, 1889, to such person, if any, whether a citizen of the United States or any other country, as shall within the five years next preceding have made such discovery in physical or astronomical science, or such novel application of science to purposes beneficial to the human race, as in the judgment of the National Academy of Sciences of the United States shall be esteemed most worthy of such honor.

Award of 1895

LORD RAYLEIGH, F.R.S. PROFESSOR WILLIAM RAMSAY, F.R.S.

Award of 1900

PROFESSOR WILHELM CONRAD VON RÖNTGEN.

Loubat Prizes

Mr. Joseph F. Loubat has established two prizes, a first prize of $1000, and a second of $400, for the best works published in the English language upon the history, geography, archæology, ethnology, philology, or numismatics of North America. The competition for these prizes is open, under the deed of gift, to all persons, whether connected with Columbia University or not, and whether citizens of the United States or of any other country. No treatises shall be eligible for the purposes of the competition except such as relate to the topics involving antiquarian research, or that refer to events prior to 1776. In order to ensure consideration of their works, authors are invited to send copies to the President of Columbia University not later than April 1 of the year in which the prize is to be awarded; but the competition will not be restricted to works thus submitted. Copies of the regulations adopted by the Trustees can be obtained from the Secretary of the University.

Mr. Loubat has provided a permanent endowment for these prizes, which will make it possible to award them at least every five years. It has been decided to divide the above list of subjects into two groups, in which the award will be made alternately. These groups consist, respectively, of history, geography, and numismatics; and of archæology, ethnology, and philology. It has also been decided that, hereafter, Mr. Loubat's foundation shall be employed to stimulate research and not simply to reward the authors of meritorious works published without reference to these prizes. That is, the University will call for the investigation of certain questions and the publication of the results, and the best works produced in answer to this call, if of sufficient value, will receive the prizes. The awards to be made in 1903 shall be conferred for works relative to subjects in the first group. One or more special topics of investigation may be recommended, and the awards limited primarily to works upon such topic or topics. But if no works upon the topics suggested seem worthy of an award, the prizes will be adjudged to the best works falling within the general group of subjects designated for the period.

It is hoped that Mr. Loubat's generous foundation may serve to encourage American research in a field that is peculiarly our own, but in which much of the best work has hitherto been done by strangers.

For names of the Committee of Award for 1903, and for further details, address the Secretary of the University.

Award of 1893

First Prize, Henry Adams, for his "History of the United States of America during the Administrations of Jefferson and Madison."

Second Prize, A. F. Bandelier, for his "Report of Investigations among the Indians of the Southwestern States."

Award of 1898

First Prize, William Henry Holmes, for his work entitled "Stone Implements of the Potomac—Chesapeake Tidewater Province."

Second Prize, Franz Boas, Ph.D., for his monograph entitled "The Social Organization and the Secret Societies of the Kwakiutl Indians."

Grant Squires Prize

A prize known as the "Grant Squires Prize," consisting of the income to be derived from the fund heretofore established by Grant Squires, A.B. '85, LL.B. '87, is awarded at Commencement at the close of every quinquennial period, dating from July 1, 1895, to such graduate conducting an original investigation of a sociological character as shall be adjudged most worthy by a Committee of Award, consisting of the President, the Professor of Sociology, and one of the professors of Political Economy, appointed by the Faculty of Political Science. Such award shall be deemed to be a recognition of scientific ability and achievement, as well as an encouragement of research.

Scholarships and Prizes in the College

Seventy-two scholarships, of the annual value of $150 each, are offered in the College. These scholarships are intended to be academic honors, and the holders are divided into three groups. The first group contains only those whose work entitles them to high academic distinction. The second consists of students of marked excellence who have not attained a position in the first group. The third comprises meritorious students to whom scholarships have been awarded on grounds of special claim. The names of holders of scholarships in groups 1 and 2 are published in the University catalogue.

The enjoyment of a scholarship for one year does not constitute a title to a second nomination. No student who has incurred serious academic censure in the course of the year will be considered as a candidate, nor any student who obtains leave of absence for the year in which the scholarship is payable. The payment of one or both instalments of the scholarships may be withheld if a student proves undeserving. Payment of stipends is made under the general regulations set forth on page 33.

Section I. Scholarships awarded to Freshmen on the basis of competitive entrance examinations, tenable for one year. The Committee on Admissions awards these scholarships in the order given annually to those qualified competitors who pass the best complete entrance examinations in all subjects at the University in June. No applications need be filed by candidates for these scholarships. Reappointment may be made by the Committee on Scholarships under certain conditions for succeeding years.

Awarded not later than July 1 :

Competitive

Alumni Competitive Scholarships.................................. 4

Founded by the Trustees in 1890, one awarded annually.

Hewitt and Harper Scholarships (2 each).......................... 4

Endowed by the gift of Abram S. Hewitt, LL.D., Class of '42, and by the bequest of Joseph W. Harper, A.M., Class of '48. One scholarship is open annually for competition to graduates of New York City high schools.

Brooklyn Scholarships...12

Founded by the Trustees in 1895, in recognition of President Low's gift of a memorial building for the University Library. Three of these scholarships are open for competition annually to residents of Brooklyn who have received their training either in the public or the private schools of that borough. —20

Section II. Scholarships awarded to applicants by the Committee on Scholarships :

Faculty and Beck

Ten Faculty scholarships established by the Trustees for award by the Faculty to students whose record for ability and scholarship, obtained either before or after matriculation, gives evidence of special fitness for the course of study which they propose to pursue, and who need pecuniary aid to obtain an education. Open to students of any class..10

Beck Scholarship :

Established in recognition of the liberality of Charles Bathgate Beck, LL.B., Class of '77. Awarded by the Faculty of the College in the same manner and subject to the same conditions as the Faculty scholarships 1

—11

Endowed

Schermerhorn Scholarships... 5

Endowed by John Jones Schermerhorn, A.B., of the Class of '25. Open to Freshmen only.

Moffat Scholarships... 2

Endowed by William B. Moffat, A.B., of the Class of '38 ; M.D., '42. Open to Freshmen only.

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Carried forward............ 7 31

Brought forward	7		31
Stuart Scholarships	2		
Endowed in memory of Sidney Barculo Stuart, Class of '80, and Eugene Talman Stuart, Class of '81, by their grandmother, Cornelia A. Atwill. Open to Freshmen only.			
Alumni Association Scholarships	4		
Established by the Trustees in recognition of the interest that the Alumni Association has always shown in the affairs of the College. Open to Freshmen only.			
Society for Promoting Religion and Learning Scholarships	8		
Founded by the Society for Promoting Religion and Learning, and awarded upon the nomination of that Society. Two students in each class.		—21	
Benefactors			
Morgan Scholarships	5		
Vanderbilt Scholarships	5		
A. A. Low Scholarships	3		
Cutting Scholarships	2		
Clark Scholarships	2		
Sloan Scholarship	1		
Parish Scholarship	1		
Schiff Scholarship	1		
		—20	
Established by the Trustees in 1899 in recognition of the liberal gifts for the purchase of the site on Morningside Heights received from J. Pierpont Morgan, Cornelius Vanderbilt, A. A. Low, R. Fulton Cutting, Alfred Corning Clark, Samuel Sloan, Henry Parish, Jacob H. Schiff, and others, designated collectively as "Benefactors Scholarships," of which the above have been assigned to the College. Open to students who have been not less than one year in the College.			——72

Scholarships under Section II are awarded under the following conditions:

Applications for scholarships must be made to the Committee on blanks, provided for the purpose, that may be obtained of the Registrar.

The term of all scholarships is one year only. Should a renewal be desired by any scholar he must make formal application for the same as in the first instance.

Students not in need of aid cannot be considered as applicants, nor will scholarships be assigned to candidates who through physical, mental, or moral weakness give little promise of future usefulness. Scholarships falling vacant may be filled at the discretion of the Committee. See page 40.

Summary

A. *Scholarships Awarded to Students who have Been in Residence at least One Year:* Twenty Benefactor scholarships may be assigned each year to students who have been in residence for at least one year. The award is, in groups 1 and 2, based on the rank attained by the candidates in the work of the previous year.

Applications should be filed with the Committee not later than May 1; the awards will be made not later than July 1.

Students who have won competitive scholarships in their Freshman year (*i. e.*, three Alumni Scholars, nine Brooklyn Scholars, and three Hewitt or Harper Scholars, see Section I), may also be reappointed from year to year by the Committee, under certain conditions.

B. *Scholarships Awarded to Students in their First Year of Residence:* The five Schermerhorn, two Moffat, two Stuart, and four Alumni Association scholarships are assigned to candidates entering the College, either before or after entrance. To secure such an award before entrance, the candidate must be strongly recommended by the college, academy, or school with which he has been connected, and must have passed satisfactory entrance examinations. To secure such an award after entrance, he must have similar recommendations, have passed satisfactory entrance examinations, and, in general, have shown marked proficiency or promise in his college work.

For award at entrance, applications should be filed not later than May 1; awards will not be made later than July 1. For award after entrance, applications should be filed not later than November 15; in general, awards will be made not later than December 1.

C. *Faculty Scholarships*, ten in number, and the Beck Scholarship, may be awarded to students in their first year of residence, or to students who have been in residence at least one year, at the discretion of the Committee on Scholarships. In their award, the general regulations applicable to the group in which they are awarded must be observed.

Prize of the Alumni Association

A prize of fifty dollars in money or its equivalent, at the option of the receiver, established by the Association of the Alumni of Columbia College, was first awarded at Commencement in June, 1858. It is given "to the most faithful and deserving student of the graduating class."

Three names are selected by the Faculty and submitted to the class, who from these three designate one to receive the prize. Should the class at any time fail to make the selection, and give notice thereof to the President of the University at least ten days prior to the day appointed for Commencement, the selection of the student to receive the prize may be made by the Faculty.

Chanler Historical Prize

In 1877, J. Winthrop Chanler, A.B. '47, bequeathed "to the Trustees of Columbia College in the City of New York the sum of $1000, to be invested and kept invested, and the income thereof to be given annually, on Commencement Day, to the undergraduate member of the senior class of said College who shall be the author of the best original manuscript essay in English prose on the history of civil government in America, or some other historical subject, the same to be determined by the judgment and decision of the faculty of said College." The bequest became available in 1879.

The competitive essays must be handed to the President on or before May 1.

General Theological Seminary Prizes

Regulations as to the Seminary prizes adopted by the Protestant Episcopal Society for Promoting Religion and Learning in the State of New York, at a stated meeting held on April 25, 1900.

1. Notice shall be given every year of the conditions of the Prizes under the old regulations (see Announcement of the College for 1900–1901, page 72), and applications invited. Wherever the conditions of the preceding competition show that one or both of the Prizes have not been taken for lack of applicants, notice shall at the same time be given of the competition for the Prize or Prizes thus open under the following new regulations:

(*a*) The Society's Greek Seminary Prize of $30 shall be competed for among such members of the graduating class of Columbia College as shall be candidates for the General Theological Seminary of the Protestant Episcopal Church, and who have taken Greek for not less than two years during their College course; the examination for the Prize to be held publicly and separate from the general examination, and to be either oral or in writing, as may be determined by the Dean of the General Theological Seminary and the Jay Professor of Greek in Columbia University; such examination to be on, first, such portion of the New Testament in Greek as may be designated by the Faculty of the General Theological Seminary and the Jay Professor of Greek; second, on some part of the writings of one of the Greek Fathers to be designated in like manner: the award to be made by a representative of the General Theological Seminary and the Jay Professor of Greek in Columbia University.

(*b*) The Society's English Prize of $20 shall be competed for by members of the graduating class of Columbia College who are candidates for the General Theological Seminary and who take or have taken the courses designated in the Announcement of Columbia College as Rhetoric 1 and Rhetoric 2, or their equivalent; the competition to consist in their production of an essay of the ordinary length of a pulpit discourse; the subjects for such essay to be announced on or before June 1st, and the essays to be handed in to the President of Columbia University on or before May 1 of the following year; the award to be made by a representative of the General Theological Seminary and the Professor of Rhetoric and English Composition, or his successor, by whatever title designated in Columbia College, on the basis of the general ability and soundness of the essay, its logical and demonstrative form, and its style; the essay to be typewritten and to follow the same regulations as to form as that prescribed for graduating theses of the senior class in Columbia College.

Scholarship in the General Theological Seminary

The scholarship in the General Theological Seminary of the Protestant Episcopal Church (heretofore placed at the disposal of the Trustees of Columbia University by the Society for Promoting Religion and Learning in the State of New York) is awarded upon the following conditions, to wit:

(*a*) All candidates shall comply with the requirements for admission to the General Theological Seminary as candidates for the ministry of the Protestant Episcopal Church, and must have taken the degree of Bachelor of Arts and have graduated with honors.

(*b*) All candidates shall report themselves to the Educational Committee of such Society at least three months previous to the examination to be held by the Faculty for the purpose of awarding such scholarship.

Scholarships and Prizes in the School of Law

Twenty-one scholarships of the annual value of $150 each are available annually for award to meritorious students in the School of Law standing in need of pecuniary aid, as follows:

Benefactors Scholarships

Eight Morgan and eight Vanderbilt Scholarships, known as Benefactors Scholarships, may be awarded to students who have been in the school for at least one year and whose record for ability and scholarship gives evidence of special fitness for the work of the school.

Faculty Scholarships

Four Faculty scholarships of the annual value of $150 each may be awarded to members of any class who are college graduates and whose record for ability and scholarship, obtained either before or after matriculation, gives evidence of special fitness for the work of the school.

The scholarships will be awarded by the Faculty at its meeting in June, immediately preceding Commencement. Scholarships not allotted at the June meeting, or becoming vacant, may be filled by the Faculty at its discretion.

Scholarships will be awarded only to applicants intending to complete the course.

Beck Prize Scholarship

A scholarship, known as the "Charles Bathgate Beck Prize Scholarship," is awarded annually to the member of the first-year class in the Law School who, having given evidence of special fitness in ability and scholarship, shall pass the best examination in the subjects of the Law School course relating to Real Estate Law. The holder of such scholarship shall, provided he remains a member of the School, receive one year's income of the prize fund established by the will of Charles Bathgate Beck, in equal semi-annual instalments, during the two years following the award. In the event of two or more students passing examinations of equal merit, the income of the fund may be subdivided.

Applications should be made in writing, on blanks which will be furnished for the purpose by the Registrar, and should be addressed to the Dean of the School. Applications should be made not later than May 1.

Fellowships, Scholarships, and Prizes in the College of Physicians and Surgeons

There are no scholarships open to candidates for the degree of M.D.

Fellowships of the Alumni Association

In June, 1891, the Trustees, at the request of the Alumni Association of the College of Physicians and Surgeons, established three fellowships to be known as the "Fellowships of the Alumni Association of the College of Physicians and Surgeons," the provision for which is made annually by the Association.

These fellowships are open to graduates of the College of Physicians and Surgeons who have shown special aptitude for scientific research in the departments of anatomy, physiology, or pathology. They are held for a period of two years, and have an annual value of $500 each. The appointments to these fellowships are made by the Executive Committee of the Alumni Association from candidates presented to them by the Professor of Anatomy, the Professor of Physiology, and the Professor of Pathology.

The persons appointed to these fellowships are expected to devote themselves to scientific research in the department which they may elect, in this country, either in the schools of Columbia University, where they enjoy free tuition and the privileges of the laboratories, or in other institutions at their own expense. At the end of two years the holders of these fellowships are expected to present to the Association a thesis containing evidence of independent or original work in their special department.

Proudfit Fellowship in Medicine

A fellowship known as the "Maria McLean Proudfit Fellowship," founded by the bequest of Alexander Moncrief Proudfit, of the Class of '92, for the encouragement of advanced studies in medicine, is open to all persons who, being the sons of native-born American parents, shall pursue advanced studies in internal medicine under the direction of the Medical Faculty of the University, and who shall, while enjoying such fellowship, remain unmarried. Such Fellow shall be a graduate in medicine and shall be appointed by the University Council upon the recommendation of the Faculty of Medicine. Such appointment shall be made every four years, beginning in 1904, upon terms to be designated by the Faculty. A vacancy may be filled for any unexpired term. The Fellow so appointed shall be entitled to receive, during his incumbency, the net income of the capital sum constituting the endowment of such fellowship. He shall carry on his studies and research at Columbia University, or elsewhere, under the direction of the Faculty of Medicine.

Alonzo Clark Scholarship

By the will of the late Alonzo Clark, M.D., LL.D., for many years President of the College of Physicians and Surgeons, and Professor of Pathology and Practical Medicine, it has been placed in the power of the Medical Faculty to bestow a scholarship, with an income of about $700 a year, for the purpose of promoting the discovery of new facts in medical science.

Harsen Prizes for Clinical Reports

Three annual prizes, founded in 1859, by the late Jacob Harsen, M.D., who was graduated from the College in 1825 and from the College of Physicians and Surgeons in 1829, are offered for the three best reports, in writing, by students of the Medical School, of the clinical instruction given at the New York Hospital during any four consecutive months of the year which ends on Commencement Day.

These reports must embrace the clinical teaching of both the visiting physician and the visiting surgeon on duty.

Each report must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, and containing the name and address of the author.

The prizes are as follows:

A first prize of $150; a second prize of $75; a third prize of $25.

A "Harsen Prize Medal" and a diploma are given with each prize.

Harsen Prizes for Proficiency at Examination

In consequence of the great increase in value of the Harsen Prize Fund, in addition to the three prizes above mentioned, there are awarded three Harsen prizes for proficiency at examination, viz.:

A first prize of $500; a second prize of $300; a third prize of $200.

The award of these prizes is made as follows:

The ten members of each graduating class who, at their examination for the degree of Doctor of Medicine, have shown the highest proficiency in all the branches combined, receive each a diploma of "Examination Honors" and are entitled to take part in special competitive examinations, the three most meritorious competitors at which receive the first, second, and third prizes respectively.

The competitive examinations consist:

1. Of an examination in writing, covering *all the branches* of medical teaching.

2. Of an examination upon the cadaver in *practical anatomy*, conducted by the Professor of Anatomy.

3. Of practical examinations in *clinical medicine* and *clinical surgery*, conducted at the hospitals by the Professors of Medicine and Surgery, respectively.

The relative merits of the competitors are decided, and the award of the prizes made, by a committee of three judges, consisting of the Dean of the College of Physicians and Surgeons, the President of the Association of the Alumni of the same, and a resident alumnus selected by them.

Alumni Association Prize

The Alumni Association Prize is a biennial prize of $500 open for competition to the alumni of the College of Physicians and Surgeons. It is awarded for the best medical essay submitted upon any subject the writer may select, and is open to competition in alternate years with the Cartwright Prize.

If no one of the competing essays be deemed sufficiently meritorious, the prize is not awarded.

An essay in order to be held worthy of the prize must contain the result of original investigation made by the writer.

This prize is not awarded to any essay which is the work of more than one author, or which is at the same time submitted for another prize. Each competitor is required to send with his essay to the Prize Committee a statement that these requirements have been complied with.

Essays in competition for the prize to be awarded at Commencement, 1902, must be sent to the Secretary of the Alumni Association of the College of Physicians and Surgeons on or before April 1, 1902.

Competing essays must each be marked with a device or motto, and accompanied by a sealed envelope, similarly marked, and containing the name and address of the author.

Cartwright Prize of the Alumni Association

The Cartwright Prize was endowed by a bequest of $10,000 left by Benjamin Cartwright and consists of $500, and is offered for competition in alternate years with the Alumni Association Prize.

It is awarded on the same terms as the latter, except that it is open to universal competition. Essays in competition for the prize to be awarded at Commencement, 1901, must be sent to the Secretary of the Alumni Association on or before April 1, 1901.

Stevens Triennial Prize

The Stevens Triennial Prize was established by the late Alexander Hodgdon Stevens, M.D., formerly President of the College of Physicians and Surgeons, on the following plan:

The prize, awarded triennially, consists of the interest yielded by the principal fund during three years, and amounts to $200.

The administration of the prize is entrusted to a commission, consisting of the Dean of the Medical Faculty ex-officio, the President of the Alumni Association of the College of Physicians and Surgeons ex-officio, and the Professor of Physiology ex-officio in the same institution.

The prize is awarded to no essay unless it is sufficiently meritorious and includes the results of original research by the writer upon the subject chosen.

The competing essays must be sent in to the Dean of the College of Physicians and Surgeons on or before the first day of January, 1903. Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, and containing the name and address of the author. The envelope belonging to the successful essay will be opened, and the name of the author announced, at the annual Commencement of the University in 1903.

The prize is open for universal competition.

Joseph Mather Smith Prize

The fund for the Joseph Mather Smith Prize was given by the relatives, friends, and pupils of the late Dr. Smith, as a memorial of his services as Professor of Materia Medica in the College of Physicians and Surgeons from 1826 to 1866. Under the provisions of the trust an annual prize of $100 is awarded for the best essay (if sufficiently meritorious) on the subject of the year, presented by an alumnus of the College of Physicians and Surgeons. The competing essays should be sent to the Dean of the Medical Faculty on or before March 10, each essay signed with a device or motto, and accompanied by a sealed envelope, inscribed with the same device or motto, and containing the name of the author. The envelope of the successful essayist will be opened, and the prize awarded at the annual Commencement next following.

Schools of Mines, Chemistry, Engineering, and Architecture

Columbia Fellowship

A fellowship known as the "Columbia Fellowship in Architecture," established by the Trustees in recognition of the gifts of F. Augustus Schermerhorn, E.M. '68, to the department of Architecture, open to all graduates of the School of Architecture less than thirty years of age, is awarded under such rules and regulations as shall from time to time be determined by the President and the Professor of Architecture. Holders of such fellowships shall devote the income thereof to foreign study and travel in accordance with plans prepared by themselves and approved by the President and such professor, and shall upon return present a written report and exhibit drawings in the School of Architecture. Said fellowship shall be awarded in the spring of every even-numbered year, and payments thereof shall be made by the Treasurer, on the certificate of the Professor of Architecture, endorsed by the President.

McKim Fellowships

Two fellowships, known as the "McKim Fellowships in Architecture," endowed by gift of Charles F. McKim of $20,000, are awarded upon like conditions and for like purposes as are specified in the foregoing section, but such fellowships shall be awarded in the spring of every uneven-numbered year, and payments thereof shall be made by the Treasurer, on the certificate of the Professor of Architecture, endorsed by the President.

Perkins Fellowship

A travelling fellowship, of the value of $1000, from the bequest of the late Willard B. Perkins, will be awarded in the spring of every fourth year beginning with the year 1902. This fellowship is open to all graduates of the School of Architecture less than thirty years of age, and shall be awarded under such rules and regulations as shall from time to time be established by the President and the Professor of Architecture. Holders of this fellowship shall devote the income thereof to study and travel, in accordance with plans prepared by themselves and approved by the President and such professor, and shall upon return present a written report and exhibit drawings in the School of Architecture. Payments shall be made by the Treasurer on the certificate of the Professor of Architecture, endorsed by the President, in four equal instalments upon the usual quarter days.

Benefactors Scholarships

In recognition of the liberal gifts for the purchase of the site on Morningside Heights which have been received from J. Pierpont Morgan, Cornelius Vanderbilt, D. Willis James, Morris K. Jesup, Samuel D. Babcock, Oswald Ottendorfer, and others, the Trustees have established a number of scholarships, known collectively as Benefactors Scholarships, twenty-seven of which of the annual value of $200 each are open to students in the Schools under the Faculty of Applied Science, as follows: seven Morgan, seven Vanderbilt, ten James, one Jesup, one Babcock, and one Ottendorfer. These scholarships may be awarded to students who have been in the University for at least one year, and whose record for ability and scholarship gives evidence of special fitness for the course of study which they propose to pursue.

Faculty Scholarships

In addition to the above, eight Faculty scholarships of the annual value of $200 each may be awarded to members of any class whose records for ability and scholarship, obtained either before or after matriculation, give evidence of special fitness for the course of study which they propose to pursue.

Applications for the above scholarships should be made in writing on blanks, which will be furnished for the purpose by the Registrar, and addressed to the Dean of the Faculty of Applied Science. Applications should be made not later than May 1, as any received later than this may fail to receive consideration.

The award of scholarships will be made not later than July 1 by the Committee on Admissions. Scholarships not allotted at this time, or becoming vacant, may be filled by the Committee at its discretion.

Scholarships granted in the first year of a student's connection with the University shall be for a half-year only, and shall be continued to those candidates only who have maintained a satisfactory academic standing during that period.

In awarding scholarships, preference will be given always to students of good academic standing and free from entrance conditions or other deficiencies. Scholarships will be awarded only to applicants who intend to complete one of the regular courses.

Illig Medals

"Illig Medals," provided for by a bequest of $2000 left by William C. Illig, E.M. '82, are awarded annually at Commencement, to the student or students in the graduating class of one of the Schools of Mines, Chemistry, Engineering, or Architecture who shall, in the judgment of the Faculty, have merited the same by commendable proficiency in their regular studies.

School of Political Science

Schiff Fellowship

The Schiff Fellowship in Political Science, the gift of Mr. Jacob H. Schiff, of the annual value of $600, is open to graduates holding a first degree from any college or scientific school of good standing either in this country or in Europe. Appointment to the fellowship is made each year by the University Council upon the recommendation of the Faculty of Political Science, and the recommendation of this Faculty is based upon the nomination following: On or before April 1 of each academic year the Faculty of Political Science shall propose to Mr. Jacob H. Schiff while living the name of a suitable person for nomination by him. After Mr. Schiff's death, his oldest living male descendant bearing his family name is to enjoy the right to nominate in the same manner. Should the family name become extinct, the right of nomination is to inhere in the oldest direct descendant of Mr. Schiff, bearing any other name, who is a resident of the United States. Should no nomination be made by Mr. Schiff or his successor after proper notification by the Faculty of Political Science, the President of the University is to have the right to nominate. Should the recommendation made by the Faculty be unacceptable to the person having the right of nomination, the Faculty shall propose other names until a nomination is made.

George William Curtis Fellowship

A fellowship, known as the "George William Curtis Fellowship," open to graduates of all colleges and scientific schools in good standing in this country or abroad, will be awarded by the University Council upon the recommendation of the Faculty of Political Science in every third year, beginning July 1, 1901, and the appointment shall be held for the term of two years, subject to such regulations as the Council shall from time to time establish in accordance with the terms of the endowment. Any person holding such fellowship for the full term of two years shall be entitled to receive during his incumbency the net income of the endowment accruing during a period of three years, and proportionately for any part of the term.

Candidates for the fellowship shall submit an essay or address on the "Immediate Duty of the American Citizen," in addition to complying with the requirements of candidates for University fellowships.

The holder shall devote himself to the study of the science of government, with a special view to its application to the then existing condition of the United States or to the State or City of New York; and at or before the conclusion of his second year he shall publish a monograph which shall be satisfactory to the Faculty of Political Science on some subject relating to such existing condition. In connection with this monograph he shall also prepare and publish a brief sketch of George William Curtis as a citizen and orator, showing that he has familiarized himself with the life and character of the man whose memory is to be perpetuated by the fellowship which he has enjoyed.

Bennett Prize

A prize of $40, to be given on Commencement Day, has been established by Mr. James Gordon Bennett. The prize is awarded by the Faculty of Political Science for the best essay in English prose upon some subject of contemporaneous interest in the domestic or foreign policy of the United States, the subject for the present year being "The Interests of the United States in the Far East." The competition is open to seniors in the College, whether regular or special students, and to all students under any of the Faculties of the University, who have not yet taken the baccalaureate degree in arts, letters, or philosophy, provided that they take courses amounting to six hours a week throughout the year in the School of Political Science. Essays must be submitted to the President on or before May 1. If no satisfactory essay is received no award will be made. No award will be made for any essay that is defective in English composition.

Toppan Prize

A prize known as the Robert N. Toppan prize, of $150, maintained by Robert N. Toppan, LL.B. '61, is awarded annually to the member of the School of Political Science who shall pass the best written examination upon a paper prepared by the professor in charge of the department of Constitutional Law.

Prize Lectureships

The Trustees have established in the School of Political Science three prize lectureships of the annual value of $500 each, tenable for three years. The power of appointment is vested in the faculty. One of these three lectureships becomes vacant at the close of each academic year. The previous holder may be reappointed. The conditions of competition are as follows:

1. The candidate must be a graduate of Columbia University in the School of Political Science or the School of Law. In the latter case he must have pursued the curriculum of the School of Political Science for at least two years.
2. He must be an active member of the Academy of Political Science.
3. He must have read at least one paper before the Academy of Political Science during the year next preceding the appointment.

The duty of the lecturer is to deliver annually, before the students of political science, a series of at least twenty lectures, the result of original investigation.

School of Philosophy

Mosenthal Fellowship

A fellowship known as the Joseph Mosenthal Fellowship in Music was established in 1898 in memory of the late Joseph Mosenthal, of New York City, and is designed to aid talented students of musical composition in the study of their art either here or abroad.

It is awarded in every uneven-numbered year, and its value at each award is $600.

The appointment to the fellowship will be made by the University Council on the recommendation of the Professor of Music.

The Fellow must pursue his or her studies either at Columbia University or under the direction of some master approved by the President and Professor of Music. Applicants are required to have a thorough knowledge of harmony and the elements of counterpoint. This fellowship, which is open to both men and women, was bestowed for the first time at Commencement, 1899. For the award of 1901, applications should be made prior to March 1, in writing, addressed to the President of Columbia University, on blanks provided for the purpose, which will be sent upon request.

Proudfit Fellowship in Letters

A fellowship known as the "Alexander Moncrief Proudfit Fellowship in Letters," for the encouragement of the study of English Literature, founded by the bequest of Alexander Moncrief Proudfit of the Class of '92, for the encouragement of the study of English Literature, is open to all persons who, being the sons of native-born American parents, shall have taken the degree of Bachelor of Arts after a three years' residence in Columbia College, and who shall, while enjoying such fellowship, remain unmarried. Such Fellow shall be appointed by the University Council upon the joint recommendation of the professors in the department of English. Such appointment shall be for the term of one year, and may be renewed, for reasons of weight, for two terms of one year each, and no more. The Fellow so appointed shall be entitled to receive during his incumbency the net income of the capital sum constituting the endowment of such fellowship, to be paid upon the certificate of the President. He shall carry on his studies and research at Columbia University, or elsewhere, under the direction of the professors in the department named.

SPECIAL FUNDS

The following funds have been given to the Trustees from time to time and are held by them for the purposes specified:

GEBHARD FUND:

Bequest of Frederick Gebhard of $20,000, for the endowment of a Professorship in the German Language and Literature. 1843.

FUND OF THE SOCIETY FOR PROMOTING RELIGION AND LEARNING:

Gift (through Professor McVickar) of $1000, for the endowment of two prizes. 1852.

"The Society's Greek Seminary Prize," and
"The Society's English Seminary Prize."

Statutes, Ch. VIII, Sec. 7.

SAMSON SIMSON FUND:

Bequest of Samson Simson, Class of 1800, of $1000 applied to the endowment of a fund for the purchase of law books. 1857.

HARSEN PRIZE FUND:

Bequest of Jacob Harsen, M.D., Class of 1825, of $31,114.10, for the endowment of prizes to be awarded to students in the College of Physicians and Surgeons. 1859.

"Harsen Prizes." Statutes, Ch. X, Secs. 8, 9.

MOFFAT SCHOLARSHIP FUND:

Bequest of William B. Moffat, M.D., Class of 1838, of $2000, for the endowment of scholarships. 1862.

"Moffat Scholarships." Statutes, Ch. XXII, Sec. 5.

STEVENS PRIZE FUND:

Gift of Dr. A. H. Stevens, Professor of Surgery, 1860–1867, of $1899.88, for the endowment of a prize. 1866.

"Stevens Prize." Statutes, Ch. X, Sec. 12.

JOSEPH MATHER SMITH PRIZE FUND:

Subscription fund of $2337.81, as a memorial of Dr. Smith, for the endowment of a prize in the College of Physicians and Surgeons. 1874.

"Joseph Mather Smith Prize." Statutes, Ch. X, Sec. 13.

CHANLER PRIZE FUND:

Bequest of John Winthrop Chanler, Class of 1847, of $1000, for the endowment of an essay prize. 1877.

"Chanler Historical Prize." Statutes, Ch. VIII, Sec. 8.

SCHERMERHORN SCHOLARSHIP FUND:

Bequest of John Jones Schermerhorn, Class of 1825, of $5000, for the endowment of scholarships. 1877.

"Schermerhorn Scholarships." Statutes, Ch. XXII, Sec. 6.

JOHN MCKEON FUND:

Bequest of John McKeon, Class of 1825, of $1000, applied to the endowment of a fund for the purchase of law books. 1885.

TYNDALL FELLOWSHIP FUND:

Gift of John Tyndall, LL.D., Professor of Natural History in the Royal Institution of Great Britain, of $10,945.50, for the endowment of a fellowship in Physics. 1885.

"John Tyndall Fellowship for the Encouragement of Research in Physics." Statutes, Ch. XXI, Sec. 3.

ALONZO CLARK SCHOLARSHIP FUND:

Gift of $14,000 as a memorial of Alonzo Clark, President of the College of Physicians and Surgeons, 1875–1884, for the endowment of a scholarship. 1887.

"Alonzo Clark Scholarship." Statutes, Ch. X, Sec. 14.

MCKIM FUND:

Gift of Charles F. McKim of $20,000, for the endowment of travelling fellowships in Architecture. 1889.

"McKim Fellowships." Statutes, Ch. XXI, Sec. 7.

F. A. SCHERMERHORN FUND:

Gift of F. Augustus Schermerhorn, Class of 1868, of $13,000, to the School of Architecture, applied to the endowment of a travelling fellowship in Architecture. 1889.

"Columbia Fellowship." Statutes, Ch. XXI, Sec. 6.

BARNARD FUND FOR THE INCREASE OF THE LIBRARY:

Bequest by President Barnard of $62,086.21, and augmented by a bequest by his widow, Margaret M. Barnard, of $16,231.67, to endow a fund for the purchase of books, especially those relating to physical or astronomical science, and for the award of a medal for discovery in physics or astronomy. 1889.

"Barnard Medal for Meritorious Service to Science."
Statutes, Ch. XXII, Sec. 8.

BARNARD FELLOWSHIP FUND:

Bequest by President Barnard of $10,000, for the endowment of a fellowship for encouraging scientific research. 1889.

"Barnard Fellowship for Encouraging Scientific Research."
Statutes, Ch. XXI, Sec. 4.

DACOSTA FUND:

Bequest of Charles M. DaCosta, Class of 1855, Trustee 1886–1890, of $100,000, has provided $86,576.83, applied to the endowment of the DaCosta Professorship of Zoölogy and of $20,000 used for fitting up the DaCosta Laboratory of Zoölogy. 1890.

SLOANE MATERNITY HOSPITAL FUND:

Gift of William D. Sloane and Emily Thorn Vanderbilt Sloane, of $250,000, for the endowment of the Hospital. 1890.

VANDERBILT CLINIC ENDOWMENT FUND:

Gift of Cornelius Vanderbilt, William K. Vanderbilt, Frederick W. Vanderbilt, and George W. Vanderbilt, of $115,000, for the endowment of the Clinic. 1890.

AVERY ARCHITECTURAL FUND:

Gift of Samuel P. Avery and Mary Ogden Avery of $30,000, in memory of their deceased son, Henry Ogden Avery. The income to be applied to the purchase of books relating to architecture, decorations, and allied arts. 1890.

MARGARET M. BARNARD FUND:

Bequest of Margaret M. Barnard (widow of President Barnard) of $16,231.67, to augment the fund established by President Barnard. 1892.

LOUBAT FUND:

Gift of Joseph F. Loubat of $7000, for the endowment of two prizes of $1000 and $400 to be awarded once in every five years for the best work printed and published in the English language on the history, geography, archæology, ethnology, philology, or numismatics of North America. 1892.

"Loubat Prizes." Statutes, Ch. XXII, Sec. 15.

LOUBAT PRIZE FUND:

The accumulated income of the Loubat Fund, from which are awarded every five years prizes to the amount of $1400, is kept as a separate fund.

TROWBRIDGE FUND:

Gift of $10,000, for the endowment of a fellowship in Engineering as a memorial of William P. Trowbridge, Ph.D., LL.D., Professor of Mining Engineering, 1877–1892. 1893.

"William Petit Trowbridge Fellowship in Engineering."

PULITZER SCHOLARSHIP FUND:

Gift of Joseph Pulitzer of $100,000, for the endowment of scholarships.

"Pulitzer Scholarships. 1893.

BENNETT PRIZE FUND:

Gift of James Gordon Bennett of $1000 for the endowment of an essay prize. 1893.

"Bennett Prize." Statutes, Ch. XII, Sec. 8.

HAMILTON FISH FUND:

Bequest of Hamilton Fish, LL.D., Class of 1827, Trustee, 1840–93, of $50,000. In recognition of this gift, the "Hamilton Fish Chair of International Law and Diplomacy" was so named. 1893.

HENRY DRISLER CLASSICAL FUND:

Gift of $10,000, presented by Seth Low, LL.D., Class of 1870, in commemoration of the semi-centennial of Professor Drisler in the service of the College, for the endowment of a fund for the purchase of books and works of art for the Greek and Latin departments. 1894.

GRANT SQUIRES FUND:

Gift of Grant Squires, Class of 1885, of $1050, for the endowment of an essay prize. 1895.

"Grant Squires Prize." Statutes, Ch. XXII, Sec. 14.

STUART SCHOLARSHIP FUND:

Gift of Mrs. Cornelia A. Atwill of $6000, for the endowment of the "Stuart Scholarships" in memory of her grandsons, Sidney Barculo Stuart, Class of 1880, and Eugene Talman Stuart, Class of 1881. 1896.

"Stuart Scholarships." Statutes, Ch. XXII, Sec. 13.

ALEXANDER I. COTHEAL FUND FOR THE INCREASE OF THE LIBRARY:

Gift of Mrs. Samuel R. Lawrence and Mrs. James R. Swords of $6000 in memory of their brother, Alexander I. Cotheal, for the endowment of a fund for the purchase of books in the Oriental languages, or relating to Oriental subjects.

ROBERT CENTER FUND FOR INSTRUCTION IN MUSIC:

Gift of Mrs. Mary Elizabeth Ludlow of real estate and securities valued at $123,524.50, for the endowment of a fund for instruction in music as a memorial of her son, Robert Center, applied to the maintenance of a professorship. 1896.

STUDENTS' LOAN FUND:

Gift of Jacob H. Schiff of $5000, for the aid of needy students. 1896.

H. C. BUNNER PRIZE FUND:

Gift of $1000, for the endowment of an essay prize. 1896.

"H. C. Bunner Medal." Statutes, Ch. XXII, Sec. 16.

ILLIG FUND:

Bequest of William C. Illig, Class of 1882 (S. of M.), of $2000, for the endowment of scholarship medals. 1897.

"Illig Medals." Statutes, Ch. XI, Sec. 9.

MOSENTHAL FELLOWSHIP FUND:

Gift of friends of the late Joseph Mosenthal of $7500, to found a fellowship in Music. 1898.

"Mosenthal Fellowship." Statutes, Ch. XXI, Sec. 15.

PERKINS FELLOWSHIP FUND:

Bequest of Willard B. Perkins, who died in 1897, of $5700. The income to be expended every four years for a travelling fellowship in the Architectural department. The fellowship will be next awarded in June, 1902. 1898.

Statutes, Ch. XXI, Sec. 17.

SCHIFF FELLOWSHIP FUND:

Gift of Jacob H. Schiff of $15,000, to found a fellowship in the School of Political Science, to be annually awarded by the Faculty on the nomination of the donor or his eldest living male descendant. 1898.

Statutes, Ch. XXI, Sec. 16.

SEIDL FUND:

The proceeds, amounting to $12,000, of a memorial performance held at the Metropolitan Opera House on March 23, 1899, in honor of the late Anton Seidl. The income of the fund to be paid to Mrs. Seidl during her lifetime, and thereafter "to be awarded at least every second year to the most promising candidate, either man or woman, prepared to devote himself to the study of musical composition at Columbia University, or elsewhere in this country or abroad." 1899.

WARING MUNICIPAL FUND:

The Chamber of Commerce of the State of New York, in the latter part of the year 1898, raised by public subscription the sum of $100,000, to perpetuate the memory of the late Col. George E. Waring. The income thereof (to be not less than $4000 per year) to be paid semi-annually to the widow and daughter of Colonel Waring during their lifetime, and thereafter the income "shall be devoted to the purpose of instruction in municipal affairs in such manner as the President and Board of Trustees of said Columbia College may direct." 1899.

FUND FOR THE ENDOWMENT OF THE ABRAHAM JACOBI WARD FOR CHILDREN IN ROOSEVELT HOSPITAL:

Gift of an anonymous donor of $50,000, "to endow a ward for children in the Roosevelt Hospital." 1899.

BECK FUNDS:

The late Charles Bathgate Beck, A.B. Class of '77, LL.B. Class '79 (who died in 1894), bequeathed the sum of $10,000 to be applied as follows: $2000 to found one free scholarship, the income to be applied "to the free yearly tuition and education in said College of one student forever, under such terms and conditions as the rules of said College and said Trustees shall prescribe." The income of the remaining $8000 to be used for an annual prize "to the students in the Law School who shall pass the best examination in Real Estate Law." 1899.

Statutes, Ch. XXII, Secs. 24, 25.

CURTIS FUND:

Gift of the George William Curtis Memorial Committee of $10,000 to establish a fellowship in the School of Political Science in Columbia University, to bear the name and to perpetuate the memory of the late George William Curtis. The holder of the fellowship to devote himself to the study of the Science of Government, with a special view to its application to the then existing condition of the United States, or of the State or City of New York, and to publish a monograph on some subject relating to the then existing condition of the United States. 1899.

DYCKMAN FUND:

Gift of Isaac Michael Dyckman of $10,000, in memory of his uncles, Dr. Jacob Dyckman and Dr. James Dyckman, both of the College of Physicians and Surgeons, to establish the "Dyckman Fund for the Encouragement of Biological Research," the interest derived therefrom to be devoted annually to such object consistent with the purposes of the gift as shall be recommended by the department of Zoölogy and approved by the President." 1899.

ALEXANDER MONCRIEF PROUDFIT FELLOWSHIP FUND:

Legacy of $15,000 from the late Alexander Moncrief Proudfit, to found a fellowship to be known as "The Alexander Moncrief Proudfit Fellowship in Letters." 1899.

Statutes, Ch. XXI, Sec. 18.

MARIA MCLEAN PROUDFIT FELLOWSHIP FUND, SCHOOL OF MEDICINE:

Legacy of $15,000 from the late Alexander Moncrief Proudfit, to found a fellowship in the School of Medicine, to be known as "The Maria McLean Proudfit Fellowship." 1899.

Statutes, Ch. XXI, Sec. 19.

TRUST FUND FOR PSYCHOLOGY:

Gift of $100,000 from John B. Rockefeller as an endowment of the head professorship of the Psychological Department of Columbia University. 1899.

CARL SCHURZ FELLOWSHIP FUND:

Fund of $10,000 from the Carl Schurz Fund Committee to establish a fellowship in honor of Carl Schurz. 1900.

Statutes, Ch. XXI, Sec. 21.

CARL SCHURZ LIBRARY FUND:

Fund of $10,000 from the Carl Schurz Fund Committee, established in honor of Carl Schurz. The income to be devoted to the purchase of books, maps, pamphlets, and the like, in the field of the German Language and Literature. 1900.

Statutes, Ch. XXI, Sec. 21.

PRIVILEGES IN OTHER INSTITUTIONS OPEN TO STUDENTS OF COLUMBIA UNIVERSITY

American Museum of Natural History

The American Museum of Natural History places its collection at the service of advanced students of Columbia University for the purposes of study and research, and provides them with the necessary facilities for work.

Metropolitan Museum of Art

The Metropolitan Museum of Art admits students of Columbia University to the Museum on presentation of their matriculation cards, and gives them permission to draw, sketch, or copy objects in the Museum ; the curator of the department in which the student desires to work furnishing him with cards for the work.

Objects may be removed temporarily from exhibition for the purpose of special study, and students are allowed to study these objects in rooms specified for the purpose.

Union Theological Seminary

The Union Theological Seminary admits, without fee, such students of high standing in the senior year of Columbia College and in the graduate department of the University as may be recommended by the President, to such lectures in the regular courses of the Seminary as may be agreed upon by the Faculty of the Seminary and the President of Columbia University, and also any students of high standing in the graduate department of Columbia University recommended by the President, to any optional or special classes, subject to the approval of the Faculty of the Seminary.

The privileges of the Library of the Seminary, for reference, are open to all students of Columbia University on recommendation of the President. Reciprocal advantages are offered by the University to students of the Seminary.

Botanical Garden

Columbia University has the right to conduct university courses in botany at the New York Botanical Garden and to use the laboratories and floral material of the same, and all courses of instruction given there are open to officers and students of the University without charge.

PUBLIC LECTURES

In addition to a number of public lectures, of which the details are not arranged in advance, Columbia University maintains courses of lectures during the months of January, February, and March, as follows :

At the American Museum of Natural History, Saturday evenings.

At Cooper Union, Tuesday evenings.

At the Metropolitan Museum ot Art, Saturday mornings.

These lectures are open to the public without fee. Tickets are required for the lectures at the American Museum of Natural History. These may be had upon application to the Secretary of the University.

THE LIBRARY

JAMES H. CANFIELD	*Librarian*
CHARLES A. NELSON	*Head Reference Librarian and Editor of Library Publications*
EDWARD R. SMITH	*Reference Librarian. Avery Library*
WILLIAM H. SWITZER	*Law Librarian*
MARGARET VAN ZANDT	*Supervisor, Order Department*
HARRIET B. PRESCOTT	*Supervisor, Catalogue Department*
VLADIMIR GR. SIMKHOVITCH	*Supervisor, Department of Serials*
FREDERIC W. ERB	*Supervisor, Loan Division of Readers' Department*
WALTER M. GILBERT	*Supervisor, Shelf Department*

The Library is open each week day (except Thanksgiving, Christmas, Good Friday, and Independence Day) from 8.30 A.M. until 10 P.M., July–September; and until 11 P.M., October–June. All officers, students, and graduates of all colleges and departments of the University have free access to the Library and may draw books for home use.

Officers of the New York University and of the College of the City of New York are granted the same Library privileges as are extended to graduates of Columbia University.

Persons not connected with the University, who are responsibly introduced to the Librarian, are given the privilege of using the Library in the building.

A reference library of about 10,000 volumes of carefully selected reference books and of the most important works on all subjects, in standard editions, representing the leading authors in all literatures, is placed in the general reading-room, directly accessible to all readers.

Connected with the stacks in which are stored the books relating especially to Philosophy, Education, Literature, and Philology, the Sociological and Economic Sciences, Public Law, and History, are eighteen special study rooms, open only to authorized readers. This arrangement is intended to give to advanced students and investigators in these fields the fullest opportunity to carry on their work by the use of a quiet room in the immediate vicinity of the literature of the subjects under consideration.

The reading-room of the Law Library occupies the middle of the north wing of the Library building, on the main floor. This is the central feature of the Law School, to which the north wing of the building is temporarily devoted.

The Avery Architectural Library is a collection of about 16,000 volumes relating to architecture and decorative art. Readers have direct access to the alcoves.

The entire Library is carefully and accurately catalogued both by authors and subjects. The catalogue is on cards accessible to readers.

The Library contains about 295,000 volumes, exclusive of unbound pamphlets and duplicates. The additions for the past five years have averaged over 18,000 volumes annually.

Among the notable special collections may be mentioned the Phœnix Library, consisting of 7000 volumes, the gift of Stephen Whitney Phœnix of the Class of 1859; the Avery Architectural Library; the Mary Queen of Scots Library, containing 400 volumes, collected and given by General J. Watts de Peyster; the collection of 1200 volumes by and about Goethe; the Immanuel Kant collection of over 600 volumes; and the valuable Townsend Library of National, State, and Individual War Records.

THE GYMNASIUM

WATSON L. SAVAGE, A.M., M.D.	*Director*
GUSTAV H. BOJUS	*Instructor*
G. RUPPERT SEIKEL	*Pianist and Assistant Instructor*
CHARLES HOLROYD	*Instructor in Swimming*
WILLIAM F. HILLS	*Secretary*
CHARLES KNEIPP	*Clerk*

The Gymnasium is open daily during the academic year, except on Sundays and legal holidays, from 10 A.M. to 7 P.M., Saturdays 6 P.M. The Gymnasium is closed for the entire day only on Thanksgiving, Christmas, New Year's, and Good Friday. On all other holidays it is open from 2 to 6 P.M.

The general exercising room is apsidal in shape, and measures on its axes 168 feet by 134 feet in the clear. The ceiling is 35 feet high, and the room is well lighted and well ventilated, both naturally and artificially. The arrangement of the apparatus is such that athletic, gymnastic, and calisthenic work can go on at the same time. The running track is 11 feet wide, with ends well raised for fast running, and measures 10 laps to the mile. On a floor 22 feet above the exercising floor are rooms for fencing, boxing, and hand-ball, 1500 lockers made of steel and open wire, and 32 shower-baths. Below the exercising floor is a swimming pool, also apsidal in shape, measuring 100 feet by 50 feet on its axes. Around the pool are four large dressing and rubbing rooms, 42 individual dressing rooms of thick opaque glass, and 20 shower, needle, and tub baths. The pool contains about 200,000 gallons of water, which is filtered and, in winter, warmed. The depth is from 4 to 10 feet. On this floor is also a special training room for the crews, with separate bath and locker rooms for both the university and freshmen crews.

All men students other than students of the College of Physicians and Surgeons must pay annually a gymnasium fee of $7.00. This covers the use of the Gymnasium, a locker, and the baths during the academic year, and includes all necessary laundry service. Officers, students in the College of Physicians and Surgeons, and alumni may use the Gymnasium upon the same terms.

Every student is entitled to a physical examination by the Director. His physical measurements will be recorded; his strength tested; his heart, lungs, eyes, and ears examined; and his general health inquired into. On the basis of this examination, advice will be given as to the kind and amount of exercise best adapted to his needs.

A physical examination is required of each student to these classes upon entrance and upon completion of the required work or at the end of the second year, and of all other students taking part in athletics.

Two hours a week of work in the Gymnasium is prescribed for all members of the two lower classes in the College and the Schools of Applied Science, except special students, students holding degrees from other colleges, and students so crippled as to be unable to perform the work.

The work prescribed for these classes has been arranged with a view to instructing students in the use of the apparatus provided and giving them the largest amount of the most suitable exercise. The movements are arranged in the most approved physiological order and are designed to exercise every part of the body without exhaustion. In addition, each student in these prescribed courses is given, without extra charge, an opportunity to learn the elements of the four principal arts of self-preservation—boxing, fencing, wrestling, and swimming.

The prescribed work for freshmen and sophomores consists of (1) carefully arranged movements in classes, with musical accompaniment, free-hand exercises, and drills with dumb-bells, French wands, Indian clubs, iron wands, and chest weights; (2) progressive exercises, in graded squads, on the various heavy apparatus, such as horizontal, vaulting, and parallel bars, flying and swinging rings, German horses and bucks, ladders, tumbling, and the like; (3) gymnastic games that develop agility, coördination, and ability to think and act quickly. Students who cannot swim are also taught, in small squads. In addition, sophomores are taught the elements of boxing, fencing (cane defence), and wrestling, so that each student may know the guard for every blow, whether with fist or cane, and how to break any hold in "catch as catch can" wrestling.

In the prescribed courses students are marked upon the basis of attendance, effort, and knowledge of the subjects taught.

Optional classes, open to every member of the University, for exercises similar to those in the prescribed courses, are held every afternoon except Saturday, as follows: Monday, Wednesday, and Friday, mass exercises in light gymnastics; Tuesday and Thursday, squad exercises in elementary and advanced heavy gymnastics.

One or more of the instructors are on the floor at all times when the Gymnasium is in use.

Rules of the Faculty Committee on Athletics

The Faculty Committee on Athletics of Columbia University have adopted the following rules applying to students and organizations engaged in or conducting the University's athletics:

Section I

RULE

1. The student must be an amateur according to the following definition:

No student shall be allowed to represent the University in any public athletic contest either individually or as a member of any team, who either before or since entering the University shall have engaged for money in any athletic competition, whether for a stake, or a money prize, or a share of entrance fee, or admission money, or who shall have taught or engaged in any athletic exercises or sport as a means of livelihood, or who shall at any time have had paid on his behalf for taking part in any athletic sport or contest, any pecuniary gain or emolument whatever, with the single exception that he may have received from his College organization, or from any permanent amateur organization of which he was at the time a member, the amount by which the expenses necessarily incurred by him in representing his organization in athletic contests exceeded his ordinary expenses. The disqualification worked by this rule shall be held to include those students who receive any emolument, by reason of their connection with the so-called "Summer Teams or Nines," or with such athletic clubs as shall not be deemed to be

purely amateur associations. This rule shall be so construed as to disqualify any student who receives from a graduate or an undergraduate of the University, from the University itself, or from any one else, any pecuniary gain or emolument, or position of profit, by reason of the student's participation in University athletics.

2. If a candidate for a degree, he must attend regularly all the exercises of his class, and pass the required examinations.

3. If a special student, he must take courses amounting to not less than fifteen hours per week, and must regularly attend their exercises. He must have been in the University at least one academic year; must have completed the courses in which he was registered, and must have passed the examinations when such were given. In the absence of required examinations he must file with the Secretary of the Faculty Committee on Athletics a certificate from the officer in charge of his course, that he has satisfactorily fulfilled its requirements.

   Auditors are not eligible to athletic teams.

4. He must, like other students, maintain a satisfactory standing in his class. If he fails to do so in any of his registered or required courses, on complaint of the Professor in charge of the work to the Faculty Committee on Athletics, he will be warned, and if satisfactory improvement does not then ensue, on a second complaint of the Professor he will be withdrawn from all squads in training.

   A student so heavily conditioned either from a previous year's work or from the entrance examinations as not to be regularly enrolled with his class, shall not be eligible for any athletic team.

   A student who does not maintain a satisfactory standing in one school of the University cannot, by entering another, alter his status as regards these rules.

5. He must pass each year a physical examination satisfactory to the Director of the Gymnasium, and must fill out and file with the Secretary of the Committee its prescribed registration blank.

6. Students from other colleges or universities who have represented these institutions in any intercollegiate contest shall not be eligible to represent Columbia University until they have been in residence for at least one academic year. (During 1900–1901 the term "student" in this rule was by vote of the Committee construed to mean men who had not completed their courses at other institutions.)

   No student shall represent Columbia in intercollegiate athletics for a longer period than four years; or than four years diminished by the number of years during which he has represented any other college or university.

The foregoing rules, with the exception of the physical examination requirement, apply to managers and assistant managers of teams.

Section II

RULE

1. Schedules for all games and all arrangements and obligations in respect to coaches must receive the approval of the Committee before being consummated.

2. A similar approval is required in the case of every individual intending to represent Columbia University in any single contest.

Section III

No athletic association or class of the University shall enter a team or an individual in any public contest so long as there is any outstanding indebtedness against the association or athletic interest thus represented.

PROF. J. F. KEMP, *Chairman*,
PROF. F. R. HUTTON,
PROF. G. E. WOODBERRY,
PROF. G. W. KIRCHWEY,
DR. W. L. SAVAGE, *Secretary*.

PUBLIC WORSHIP AND RELIGIOUS WORK

A service is held every week day, except Saturday, in the temporary chapel, Room 305, Schermerhorn, at 9.10 A.M. This hour, though early for those who live at a distance, has been found the most convenient, all things considered. The service lasts fifteen minutes, in which time there are singing, reading the Scriptures, prayers, and generally an address by the Chaplain. Attendance is wholly voluntary. All officers and students of the University are invited to attend, and those who profess and call themselves Christians are expected to give support to the services by their occasional presence.

Religious work accompanies religious worship. The Chaplain spends his morning hours in his office, No. 415 West, where at stated times he is glad to welcome any student who may wish to confer with him.

In West Hall there is also a suite of rooms set apart for the use of the University Young Men's Christian Association, under whose direction there are Bible Classes held each week, religious meetings conducted, and much good work of a practical character carried on among the students.

Mr. Albert Britt is Secretary of this organization, and is also associated with the committee having in charge the work of securing positions that will give remuneration to students wishing employment. He can be addressed at the Y. M. C. A. rooms, 409–413 West.

DEPARTMENTS OF INSTRUCTION

When an announced course has not been applied for by at least three students, candidates for a degree, the instructor shall be at liberty to withdraw the course.

The number of hours, unless otherwise specified, indicates the number of hours a week for the entire year.

Anatomy

George Sumner Huntington, M.D.	*Professor*
Bern Budd Gallaudet, M.D.	*Demonstrator*
William H. Rockwell, Jr., M.D.	*Assistant Demonstrator*
*Fred. John Brockway, M.D.	*Assistant Demonstrator*
Carlton Philips Flint, M.D.	*Assistant Demonstrator*
*George W. Crary, M.D.	*Assistant Demonstrator*
Howard D. Collins, M.D.	*Assistant Demonstrator*
Walton Martin, M.D.	*Assistant Demonstrator*
C. Carmalt, M.D.	*Assistant Demonstrator*
Arthur S. Vosburgh, M.D.	*Assistant Demonstrator*
Henry E. Hale, M.D.	*Assistant Demonstrator and Alumni Association Fellow in Anatomy*
Adrian van Sinderen Lambert, M.D.	*Assistant Demonstrator*
Victor Cox Pedersen, M.D.	*Assistant Demonstrator*

Courses 2, 3, 4, and 5 are required in the first year of candidates for the degree of M.D. The four courses together may be elected by seniors in Columbia College.

Courses 1, 6, 7, 8, and 9 are required in the second year of candidates for the degree of M.D.

Courses 10 and 11 may be offered as a major or minor for the degree of A.M. or Ph.D. according to special arrangement with the head of the department. They are optional for qualified candidates for the degree of M.D.

Courses 12–23 may be offered each as a minor for the degree of A.M. They are optional for candidates for the degree of M.D., and are open to post-graduate students in medicine.

Course 24 cannot be counted for a degree. It is open to teachers and qualified graduate students.

None of the courses of the department of Anatomy are open to women.

*Absent on leave.

Courses

1—Vertebrate morphology—Anatomy of the body cavities—Visceral and topographical course—Thorax and abdomen. Lectures combined with demonstrations. 3 hours. Professor HUNTINGTON

2—Demonstrations to sections of the class—Cranial osteology; syndesmology, myology, peripheral nervous system, and angeiology of the head and neck. 1 hour. Dr. MARTIN

3—Demonstrations to sections of the class—Osteology, syndesmology, myology, peripheral nervous system, and angeiology of the extremities. 2 hours. Drs. CARMALT and VOSBURGH

These courses are so arranged as to maintain, with reference to the subjects treated, a direct connection with the laboratory course in dissection, No. 5.

4—Demonstrations to sections of the class.

(B) Preliminary visceral course—Anatomy of the viscera and body cavities. 1 hour.

This portion of the course is designed to afford that general instruction in the descriptive anatomy and the relations of the viscera which is indispensable for the understanding of the courses in the normal histology and physiology of the viscera. Dr. COLLINS

5—Laboratory course—Dissection of the human body. 18 to 20 hours a week, at various hours, for from 3 to 5 periods of 4 weeks each. Professor HUNTINGTON, Dr. GALLAUDET, and the ASSISTANT DEMONSTRATORS OF ANATOMY

6—Laboratory course—Dissection of the human body. 10 to 12 hours a week for from 6 to 11 weeks. Professor HUNTINGTON, Dr. GALLAUDET, and the ASSISTANT DEMONSTRATORS OF ANATOMY

7—Demonstrations to sections of the class—Anatomy of the mouth, pharynx, and larynx—The auditory apparatus—The central nervous system. 3 hours. Dr. GALLAUDET

8—Demonstrations to sections of the class—Visceral anatomy. This course preserves an organic connection with Course 1, and presents for direct examination and demonstration the preparations serving to illustrate that course. 2 hours. Dr. MARTIN

9—Demonstrations to sections of the class—Anatomy of the cranial nerves. 1 hour for one half-year. Dr. MARTIN

10—Laboratory courses in animal morphology. No specified number of hours a week. Professor HUNTINGTON

Research

11—The laboratory of animal morphology is open for research, under the direction of the professor, to advanced workers. Professor HUNTINGTON

12—Comparative morphology of the carpus—A comparative study of the carpus in vertebrates above fishes, with especial reference to the homologies of the components, their evolution and significance, and their mutual relations in amphibia, reptiles, birds, and mammals. Professor HUNTINGTON

13—Comparative morphology of the respiratory apparatus in mammalia, sauropsida, and batrachia—Evolution of the composite mammalian lung from the air-sac—Morphology of mammalian bronchial tree—Construction of terminal branches and end spaces—Skeletal and other modifications of the respiratory apparatus in birds. Professor HUNTINGTON

14—Comparative morphology of the central nervous system—Demonstration and laboratory course—Detailed work in brain of cod, frog, turtle, bird, and mammal. Professor HUNTINGTON

15—Comparative myology.
(*a*) Appendicular muscles.
(*b*) Ventro-appendicular muscles.
(*c*) Muscles of the foot.
Professor HUNTINGTON

16—Human and comparative morphology of the auditory apparatus. Professor HUNTINGTON

17—Comparative morphology of the upper respiratory passages, nares, larynx, epiglottis, syrinx—Professor HUNTINGTON

18—Comparative morphology of the uro-genital system—Professor HUNTINGTON

19—Cranial topography—Professor HUNTINGTON

This course is designed for advanced students possessing a knowledge of the gross morphology of the human brain.

Pre-requisite: Course 7 or its equivalent.

20—Comparative morphology of the heart and vascular system—Development and modification of the venous system in vertebrates. Professor HUNTINGTON

21—Comparative morphology of the alimentary tract and digestive glands—Anatomy of the peritoneum. Professor HUNTINGTON

22—Comparative morphology of the cæcum and ileo-colic junction in vertebrates—Detailed study of the modification of the structures and their vascular and serous relations. Professor HUNTINGTON

23—Topography of the pelvic viscera, muscles, and facsiæ—Professor HUNTINGTON

24—Anatomical technology and museum methods—Professor HUNTINGTON

In all courses offered in morphology the work is designed to be laboratory exercises of at least two continuous hours' duration, at any one exercise, supplemented in certain courses by demonstration and study of material contained in the Museum of Human and Comparative Anatomy and in the study collections of the department.

The time required for the above courses, if offered as minors for the degree of A.M. or Ph.D., or if taken as optionals, is half a day per week from October to April.

The demands on laboratory space and teaching force render it necessary to limit the number of candidates admitted to these courses.

A series of university lectures and demonstrations based on the material contained in the morphological museum is given annually.

These lectures are incorporated in Course 1, and deal with the comparative anatomy of the circulatory, respiratory, alimentary, and uro-genital systems of vertebrates, together with certain portions of the skeletons, as the pectoral and pelvic girdles. The lectures are open to students under the Faculty of Pure Science. Details of subjects and dates will be furnished on application to the department.

Fellowships

For the fellowships open to persons desiring to do special work under the professor of anatomy, see page 46.

Anatomical Laboratories

The laboratory facilities of the department of Anatomy are very complete. The large general dissecting-room accommodates from 390 to 546 students at a time, working in groups of five or seven, respectively, at one table.

The plant for the production of artificial cold by the anhydrous ammonia process has enabled the department, through the means offered for the indefinite preservation of fresh subjects by the cold-storage system, greatly to increase the amount of material available for laboratory work; and has also rendered it possible so to regulate the temperature of the general laboratory that the work can be carried on without difficulty during the warmer months at the beginning and close of the academic year.

The laboratory for advanced morphological research occupies the third story of the new anatomical building. Every facility for advanced and research work in morphology is here extended. The established connections of the department furnish abundant human and comparative material, both mature and embryonal. The private library of the professor of anatomy is at the disposal of advanced workers.

Museum of Human and Comparative Anatomy

Much work has been done in the formation of a Museum of Human and Comparative Anatomy, the ultimate design of which is to present, in as complete a manner as possible, a view of the evolution of the forms of animal life, and of their natural relations, both in series of natural groups, and in the comparative and relative position of organs and systems. Even the approximate attainment of this aim will require much time and work, but sufficient progress has been made to enable the department to offer great facilities for study and research. The collection, both as regards groups and the individual preparations, is designed for the illustration of both elementary and advanced courses, and is largely used in the instruction of the medical undergraduates and in advanced study and research. The new anatomical building provides the opportunity for the further development of this invaluable portion of the departmental equipment. The first and second stories of the new building are devoted to the morphological museum, and it is hoped that in the space thus provided the continued development of scientific anatomy, both for purposes of undergraduate instruction and of advanced research, will steadily proceed.

In addition to the museum collection proper the department is constantly adding to a large collection for advanced study and research.

A study-collection of human osteological preparations is so administered as to enable every student to take out the different osteological series and retain them for private study as long as required.

Anthropology

(See index).

Architecture

William R. Ware, LL.D.	*Professor of Architecture*
Alfred D. F. Hamlin, A.M.	*Adjunct Professor of Architecture*
Frank Dempster Sherman, Ph.B.	*Adjunct Professor of Architecture*
Maximilian K. Kress, A.M.	*Curator and Lecturer in Architecture*
Grenville T. Snelling, S.B.	*Instructor in Architectural Engineering*
Charles A. Harriman	*Instructor in Architectural Drawing*
Charles P. Warren, A.M.	*Tutor in Architectural Construction*
William T. Partridge	*Lecturer in Architectural Design*
Henry F. Hornbostel, Ph.B.	*Lecturer in Architectural Design*

The first three years are given to parallel courses in drawing and design, in history and ornament, and in mathematics, architectural engineering, specifications, and building materials, with exercises in the reading of French and German text-books and the writing of English. In the second and third years there are lectures on the theory of architecture and on the decorative arts. Many of these subjects are given in alternate years, two classes taking them together. In the fourth year the students have the choice of an advanced course in history and design, or of an advanced course in scientific and practical construction. These are identical with the university courses in these subjects, so that a student who selects one of these courses as an undergraduate may return and take the other as a university student.

Graduates of schools of science and schools of architecture, and professional draughtsmen of mature age are received as special students, not candidates for a degree, into such courses as they are qualified to pursue.

In alternate years are awarded a travelling fellowship of the value of $1300, established by the Trustees in recognition of the liberality of Mr. F. A. Schermerhorn to this department, and two travelling fellowships of the value of $1000 each, the gift of Mr. C. F. McKim. Every fourth year is awarded a travelling fellowship of the value of $1000, the bequest of the late Willard B. Perkins. Courses 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, and 15 are open as electives to seniors in the College.

Courses

1—Ancient Architectural history. 3 hours, first year. Text-book: Reber's *History of Ancient Art.* Mr. KRESS

2—Mediæval architectural history — Byzantine, Romanesque, Gothic. 2 hours, first half-year, with reading of a French text-book by the first class and of a German text-book by the second class. 2 hours reports and criticisms, and 13 hours original research in library and drawing-room (including historical drawing 9*c*), second half-year. Exercises in historical design (see 15). Text-books: Corroyer, *L'Architecture Gothique;* and Hauser, *Styl-lehre des Mittelalters* (see 16). Every other year to the second and third classes together (alternating with 3). Given in 1900–1901. Professor WARE and Mr. KRESS

3—Modern architectural history—The Renaissance, modern revivals, Oriental and American architecture. 2 hours, first half-year, with reading of a French text-book by the second class and of a German text-book by the third class. 2 hours lectures, and 13 hours research in library and drawing-room (including historical drawing 9*c*), second half-year. Exercises in historical design (see 15). Text-books: Palustre, *L'Architecture de la Renaissance;* Hauser, *Styl-lehre Renaissance* (see 16). Every other year to the second and third classes together (alternating with 2). Given in 1900–1901. Professor HAMLIN and Mr. KRESS

4—The theory of architecture—In alternate years: (*a*) The theory of form, proportion, symbolism; (*b*) the decorative arts, stained glass, mosaic, fresco. Given in 1900–1901. (*c*) The theory of color; (*d*) planning, composition, and style. Given in 1901–1902. 1 hour, second and third classes together. Professor WARE

5—History of ancient ornament—The decorative forms of Egyptian, Assyrian, Greek, and Roman art. 1 hour, first year. Professor HAMLIN

6—History of mediæval ornament—Byzantine and Gothic ornament. 1 hour. Every other year to the second and third classes together (alternating with 6). Given in 1900–1901. Professor HAMLIN

7—History of modern ornament—Renaissance, Oriental, and modern ornament. 1 hour. Every other year to the second and third classes together (alternating with 6). Given in 1901–1902. Professor HAMLIN

8—The elements of architecture—Mouldings, the orders, pedestals, pilasters, pediments, intercolumnation, superposition, balusters and balustrades, arches and arcades, imposts, doors, windows, roofs, spires, steps, stairs, vaults, domes. Eighteen plates required. 1 hour lecture first year. Mr. PARTRIDGE

9—Drawing.

(*a*) Architectural drawing, with brush, pencil, and pen. 8 hours, first year. Mr. HARRIMAN

(*b*) Free-hand drawing, with pencil, pen, and brush; sketching and drawing of ornament and the figure from lithographs, photographs, and casts; water-colors. About four hours a week throughout four years. Professor HAMLIN, Mr. HARRIMAN, and Mr. PARTRIDGE (*c*) Historical drawing. 2 hours, first year. In illustration of ancient history, in connection with Course 1. Mr. KRESS

Second and third years, 13 hours, during part of the second half-year. In alternate years: Mediæval history in connection with Course 2. Professor WARE, Mr. KRESS, and Mr. PARTRIDGE. Modern history in connection with Course 3. Professor HAMLIN, Mr. KRESS, and Mr. PARTRIDGE

(*d*) Sketches and measured drawings from buildings. Summer-vacation work, second and third years. Professor HAMLIN

10—Projections, intersections, and shades and shadows. 1 hour lecture first year. Professor SHERMAN

11—Perspective. 16 lectures, second year. Sixteen plates required. Professor WARE

12—Descriptive geometry, stereotomy (stone-cutting). Text-book: Church's *Descriptive Geometry*. 2 hours, fourth year. Twenty plates required. Professor SHERMAN

13—Specifications.

(*a*) Masonry: stonework, brickwork, plastering; drainage; fire-proofing. Woodwork: carpentry, joinery, hardware, painting, glazing, roofing; slow-burning construction; heating and ventilation. Iron-work: steel and iron construction, joints, framing, and bracing; plumbing.

The class copy a model specification and are examined upon the lectures. 2 hours, third year. 6 hours in the draughting-room every other week. Mr. WARREN

(*b*) Building-stones, artificial stones, cements, asphalts, terra-cotta. Growth and preservation of wood; paints, glass. Metals, fire-proofing.

2 hours, third year. Mr. WARREN

14—Architectural engineering—(*a*) Analytical geometry. Text-book: Peck's *Anal. Geometry;* the differential calculus. Text-book: Peck's *Calculus.* 3 hours, first year. (*b*) The integral calculus. Analytical mechanics: statics, elementary dynamics. 3 hours, second year. Text-book: Peck's *Analytical Mechanics.* Professor SHERMAN. (*c*) Applied mechanics: foundations, retaining walls, walls, pillars, beams, trusses, arches, vaults, and domes. 5 hours, third year. 6 hours in the draughting-room every other week. Mr. SNELLING

15—Architectural design. 1 hour, first year; 13 hours, first half of the second and third years. Problems in design: plans, elevations, sections, and details. Professor WARE, Professor HAMLIN, and Mr. PARTRIDGE

In the second year the problems involve special drill in the use of the orders; in the third year in planning and composition (see 19).

In the second and third years the afternoons of the second half-year are mainly occupied by historical study; but there are also a limited number of problems in historical design (see 2 and 3).

16—Archæology. 2 hours, first year, in French. Text-books: in alternate years, Corroyer, *L'Architecture Gothique;* Palustre, *L'Architecture de la Renaissance.* 2 hours, second year, in German. Text-books: in alternate years, Hauser, *Styl-lehre des Mittelalters;* Hauser, *Styl-lehre Renaissance* (see 2 and 3). Mr. KRESS

17—Architectural essays. 1 hour, first, second, and third years. Professor WARE and Professor SHERMAN

18—Advanced architectural history. 2 hours, fourth year. Reading and writing on special topics with illustrative drawings. Professor WARE

19—Advanced architectural design—Advanced problems in planning and composition. 25 hours, fourth year. Professor HAMLIN and Mr. HORNBOSTEL

20—Advanced architectural engineering — Practical examples in applied mechanics, treated both graphically and analytically. Problems in constructive design. 15 hours, 15 hours practice, fourth year. Professor BURR, Professor WOODWARD, and Mr. SNELLING

21—Advanced practice—The study of building processes. 2 hours, fourth year. Mr. WARREN

22—University course in architectural history and design. 27 hours. Professor WARE, Professor HAMLIN, and Mr. HORNBOSTEL

23—University course in architectural engineering and practice. 30 hours. Professor BURR, Professor WOODWARD, Mr. SNELLING, and Mr. WARREN

These two university courses are identical with the fourth-year elective courses 18, 19, 20, 21. They are open to graduates of colleges and scientific schools who are qualified to take them, and to experienced draughtsmen.

Properly qualified candidates are received as special students for periods of two months at a time.

Equipment

The equipment of the department consists of about 18,000 photographs, about 900 books, a classified library of prints and plates, the Avery Architectural Library of about 13,500 volumes, a collection of MS. drawings from the *École des Beaux-Arts*, a collection of casts of architectural details from ancient and modern Roman buildings, a collection of building-stones, tools, and materials, and about 7500 lantern-slides of architectural subjects. The Willard collection of architectural casts at the Metropolitan Museum is open to students every day and two evenings every week.

Astronomy

JOHN KROM REES, E.M., Ph.D	*Professor*
HAROLD JACOBY, Ph.D	*Adjunct Professor*
S. ALFRED MITCHELL, Ph.D	*Tutor*

GEORGE W. HILL, LL.D	*Lecturer on Celestial Mechanics*

Courses

1—General astronomy—This course is historical and descriptive, and is supplemented by visits to the observatory, where students are taught to locate the principal constellations, and are afforded opportunities to view the sun, moon, planets, nebulæ, and stars. Reference books: Young's *General Astronomy*, Grant's *History of Physical Astronomy*, Clerke's *History of Astronomy during XIX Century*, and Clerke's *System of the Stars*. 2 hours. Professor REES, assisted by Dr. MITCHELL

Open to seniors in the College and to graduates. Offered as a minor for the degree of A.M. Pre-requisites for graduates: Physics 1 or 4 and Mathematics 1 and 2.

2—Spherical and practical astronomy—This course consists mainly of the study and use of the sextant for time and latitude determinations, and of the transit instrument for time. Reference books: W. W. Campbell's *Hand-Book of Practical Astronomy*, Doolittle's *Practical Astronomy*. 2 hours lectures and 2 hours observatory work. Professor REES and Dr. MITCHELL

Open to seniors in the College. Offered as a minor for the degree of A.M. Pre-requisites: Mathematics 6 and Physics 1 or 4.

3—Geodesy—This course deals with the subjects named in the scheme of the Summer School in Geodesy. During the vacation the students are required to attend the Summer School for six weeks to learn the use of apparatus, as indicated by the following:

Use of the nautical almanac and American ephemeris.
Sextant observations for time and latitude.
Transit instrument for time.
Base-line measurements.
Angle measurements by "directions."
Determination of the azimuth of a line.
Barometric hypsometry.

Reference books: Doolittle's *Practical Astronomy*, Clark's *Geodesy*, *United States Coast Survey Reports*, and Jordan's *Handbuch der Vermessungskunde*. 2 hours lectures first year and first half of the second year. Professors REES and JACOBY, and Dr. MITCHELL

Required of students in the Civil Engineering and in the Sanitary Engineering courses during third and fourth years. The third-year work is offered as a minor for the degree of A.M. The fourth year, including summer-school work, is offered as a major for the degree of A.M. Open to seniors. Pre-requisites: Mathematics 6 and Physics 1 or 4.

4—Advanced spherical and practical astronomy—This course deals with the subjects of time, latitude, and longitude; use of equatorial and of zenith telescopes. Reference books: Chauvenet's (2 vols.) *Spherical and Practical Astronomy*, and Doolittle's *Practical Astronomy*. 2 hours lectures and 4 hours observatory work for two years. Professor REES

First year offered as a major for the degree of A.M. or a minor for the degree of Ph.D. Two years' work offered as a major for the degree of Ph.D. Pre-requisites: Astronomy 1 and 2.

5—Theoretical astronomy—This course deals mainly with the theory of comet orbits and their calculation. Reference books: Klinkerfues's *Theoretische Astronomie* and Oppolzer's *Bahnbestimmung*. 1 hour, supplemented by computations, for 2 years. Professor JACOBY

First year offered as a major for the degree of A.M. or a minor for the degree of Ph.D. Two years' work offered as a major for the degree of Ph.D. Pre-requisites: Astronomy 1 and 2.

6—Theory and method of reduction of photographic star plates—This course deals with the determination of star places from the photographic plates, and includes the subjects of stellar parallax and proper motion. 1 hour, with 4 hours practical work, for 2 years. Professor JACOBY

First year offered as a major for the degree of A.M. or a minor for the degree of Ph.D. Two years' work offered as a major for the degree of Ph.D. Pre-requisites: Astronomy 1 and 2.

7—The method of least squares, with applications to astronomy and to geodesy. 1 hour for 1 year. Professors REES and JACOBY

Offered as a major for the degree of A.M. or a minor for the degree of Ph.D. Prerequisite: Astronomy 3 or 4.

8—Lectures on celestial mechanics—Elementary course. Follows the historical or chronological method. 1 hour for 1 year. Dr. HILL *

Open to seniors and to graduates as a minor for the degree of A.M. Pre-requisites: Astronomy 1 and 2.

9—Advanced course in celestial mechanics. 1 hour for 1 or 2 years. Dr. HILL *

Open to graduates as a major or minor for the degree of Ph.D. Also as a major for the degree of A.M. Pre-requisites: Astronomy 1 and 2 and Mathematics 6.

10—Astronomical spectroscopy. 1 hour, supplemented by laboratory work. Dr. MITCHELL

Offered as a major or minor for the degree of A.M. and a minor for the degree of Ph.D. Pre-requisites: Astronomy 1 and Mathematics 6.

Equipment †

The apparatus of the department consists principally of the following:

The Rutherfurd equatorial of 13 inches aperture with a correcting lens for photography.
Three transit instruments.
Two fine clocks and several chronometers.
Three chronographs.
Three-inch zenith telescope by Wanschaff of Berlin.
Measuring machines for photographs by Rutherfurd and by Repsold.
Personal equation machine.
Base-measuring apparatus.
Theodolites by Wanschaff of Berlin and Saegmueller of Washington, D. C., with micrometer microscopes reading to a second of arc.

The Library of the University is well supplied with the books relating to the work of the department.

Bacteriology

(See Pathology).

*** Absent on leave, course not given 1900–1901.**

† The only astronomical instruments at present mounted in position are the transit instrument with chronograph and the zenith telescope.

Botany

LUCIEN MARCUS UNDERWOOD, Ph.D.	*Professor*
NATHANIEL LORD BRITTON, Ph.D.	*Emeritus Professor*
FRANCIS ERNEST LLOYD, A.M.	*Adjunct Professor (Teachers College)*
CARLTON CLARENCE CURTIS, Ph.D.	*Tutor*
MARSHALL AVERY HOWE, Ph.D.	*Curator*
† HERBERT MAULE RICHARDS, Sc.D.	*Instructor*
† LOUISE BRISBIN DUNN, A.M.	*Tutor*

Certain graduate courses at the New York Botanical Garden are also given, either wholly or in part, by the following members of the Garden Staff:

DANIEL TREMBLY MACDOUGAL, Ph.D	*Director of the Laboratories*
JOHN KUNKEL SMALL, Ph.D.	*Curator of the Museums*
PER AXEL RYDBERG, Ph.D.	*Assistant Curator*
GEORGE VALENTINE NASH	*Curator of the Plantations*

Partial courses are also given by:

ELIZABETH GERTRUDE BRITTON,
EDWARD SANDFORD BURGESS, Ph.D.

The courses in Botany are arranged with the intention of giving a broad general knowledge of the subject during the first year, and permitting some degree of choice during the second year; for those who continue the work as a graduate subject, the widest possible range of courses is open to the student's choice. Course 1 can be elected by any student who has reached the sophomore year, and if the subject be pursued consecutively for three years, the candidate will be ready to enter upon research work as a major subject. Two years would be sufficient for this preparation if the candidate elected two courses in Botany during the second year. Courses 1–4, or their equivalent, together with Course 5 or Course 7, according as the trend is toward morphology or physiology, form the necessary preparation for commencing a major subject in Botany. Course 1, with any two additional courses or an equivalent, will be required as the necessary preparation for commencing a minor subject in Botany. Minor graduate courses will be arranged after conference with the head of the department.

Auditors will be admitted to any courses for which they may be prepared.

Courses 9–29 are primarily for graduate students; all are open to women.

Courses 9, 10, 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 may be taken as major work for A.M.

Course 3 combined with Course 7, or a proportionate amount of work in Courses 9, 10, 16, 18, 19, 20, 22, 23, 24, 25, may be taken as minor work for A.M.

Courses 12, 13, 14, 15, 27, 28, and 29 may be taken for major work for Ph.D.

† On Barnard College Foundation.

Any two of the Courses **9, 10, 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25**, or a proportionate amount of work in Courses **12, 13, 14, 27, 28**, may be taken as minor for Ph.D. In some cases the accomplishment of an approved piece of research may be offered as a minor for Ph.D.

Graduate students preparing for the profession of teaching are expected to take Education **12** at some time during their course of study.

Courses

1—Elementary botany—The general biological features of plants and the outlines of the evolution of plant types are considered; special attention being given to the significance of morphological characters and the forces operative in their development. 2 laboratory sessions a week, including conferences. Dr. CURTIS

Open to those who have reached the sophomore year.

2—Comparative anatomy of vascular plants—An examination of the comparative morphology of the cell is followed by the study of the distribution of tissues, with special regard to their functions. 2 laboratory sessions a week, first half-year. Dr. CURTIS

Pre-requisite: Course 1, or its equivalent.

3—Plant physiology—A course in experimental physiology supplemented by selected readings and conferences. 2 laboratory sessions a week, first half-year. Dr. CURTIS

Pre-requisite: Course 1, or its equivalent.

NOTE.—In this and other courses in vegetable physiology the nature of the work occasionally requires attendance at the laboratory at unusual times.

4—General morphology of cryptogams—Detailed study of some group or groups of the lower plants. 2 laboratory sessions a week, second half-year. Dr. HOWE

This course naturally follows Course 2, to complete an elective for the year. Prerequisite: Course 1, or its equivalent.

5—Botanical problems—Illustrating advanced methods of fixing, imbedding, sectioning, and staining. 2 laboratory sessions a week, second half-year. Dr. CURTIS

Pre-requisite: Course 2.

6—Economic botany—Study of plants useful to man as food, medicine, timber, and fibre. 2 hours lecture, or the equivalent in the laboratory. Professor UNDERWOOD

Pre-requisite: Course 1, or its equivalent.

7—Plant physiology—A continuation of Course 3, but with the added prerequisite of Course 2. 1 lecture and 2 laboratory sessions, second half-year. Dr. CURTIS

8—Lectures on general botany—A brief systematic study of plant structure and function, and the characters and relations of the leading groups of plants. 1 lecture, assigned reading and laboratory work, first half-year. Professor UNDERWOOD and Dr. HOWE

Required of first-year students in the School of Mines, and in the courses in Civil Engineering and Mining Engineering.

9—Taxonomy of spermatophyta—Study of the principal families and general field and laboratory work. Not less than ten hours a week for one year. Professor BRITTON, Dr. SMALL, Dr. RYDBERG

Pre-requisite: Course 2, or its equivalent. If offered as a major for A.M. Courses 3, 4, 5, also.

10—Morphology of fungi—Study of the structure, polymorphism, and development of the Fungi, including culture methods. Field and laboratory work. Not less than ten hours a week for one year. Professor UNDERWOOD

Pre-requisite: Course 4, or its equivalent.

11—Experimental morphology—A study of the variation of form and structure, and the determination of the causes. Not less than ten hours a week for one year. Professor LLOYD

Pre-requisites: Courses 3 and 5.

12—General physiology—Problems in absorption, excretion, nutrition, and transformation of energy, growth, the general irritable organization of the plant, and the mechanism of its movements. Laboratory. Not less than ten hours a week for three years. Dr. CURTIS or Dr. MACDOUGAL

Pre-requisites: Courses 3 and 7, or their equivalent.

13—Embryology of spermatophyta—Comparative embryology of special groups. Special embryological problems. Technique. Not less than ten hours a week for three years; or, with special work during two summers, two years. Professor LLOYD

Pre-requisite: Course 5, or its equivalent.

14—Special taxonomy—Critical study of a family or genus of plants of not less than fifty species. The group may be chosen from the entire range of the vegetable world. Field, herbarium, laboratory, and garden work. Not less than ten hours a week for two years, with field work during two seasons. Directed, according to the group chosen, by Professor UNDERWOOD, Dr. HOWE, Professor BRITTON, Dr. SMALL, Dr. RYDBERG, Mr. NASH, Professor BURGESS, Mrs. BRITTON

Pre-requisite: Course 2, and if the subject chosen is a group of cryptogams, Course 4.

15—Regional botany—Collection, determination, and comparative study of the plants of some restricted area. Field, herbarium, and laboratory work. Not less than ten hours a week for two years, including field work during two seasons. Professor UNDERWOOD, Professor BRITTON

Pre-requisite: 3 years' work in Botany.

16—Physiology of the cell—Problems in the chemical and the physical properties, movements and irritability of unicellular and other generalized organisms. Laboratory. Not less than ten hours a week for one year. Dr. MACDOUGAL

Pre-requisites: Courses 3 and 7, or their equivalent.

17—Ecology—Plants studied in relation to their environment and the problems of evolution involved. Field and laboratory work; conferences. Not less than ten hours a week for one year. Professor LLOYD

Pre-requisites: Courses 3 and 7.

18—Morphology of algæ—Study of the structure and development of algæ. Field and laboratory work. Not less than ten hours a week for one year. Dr. HOWE

Pre-requisite: Course 5, or its equivalent.

19—Morphology of bryophyta—Study of the structure and development of the musci and hepaticæ. Field and laboratory work. Not less than ten hours a week for one year. Professor UNDERWOOD, Mrs. BRITTON

Pre-requisite: Course 5, or its equivalent.

20—Morphology of pteridophyta—Study of the structure and development of the ferns and fern-allies. Field and laboratory work. Not less than ten hours a week for one year. Professor UNDERWOOD

Pre-requisite: Course 5, or its equivalent.

21—Morphology of spermatophyta—Study of the structure and development of the flowering plants. Field and laboratory work. Not less than ten hours a week for one year. Dr. RYDBERG

Pre-requisites: Courses 2 and 5, or their equivalent.

22—Taxonomy of algæ—Study of the diagnostic characters and relationships of the principal families and genera. Field and laboratory work. Not less than ten hours a week for one year. Dr. HOWE

Pre-requisite: Course 4, or its equivalent.

23—Taxonomy of fungi—Study of the diagnostic characters and relationships of the principal families and genera. Field and laboratory work. Not less than ten hours a week for one year. Professor UNDERWOOD

Pre-requisite: Course 5, or its equivalent.

24—Taxonomy of bryophyta—Study of the diagnostic characters and relationships of the principal families and genera. Field and laboratory work. Not less than ten hours a week for one year. Professor UNDERWOOD, Mrs. BRITTON

Pre-requisite: Course 4, or its equivalent.

25—Taxonomy of pteridophyta—Study of the diagnostic characters and relationships of the principal families and genera. Field and laboratory work. Not less than ten hours a week for one year. Professor UNDERWOOD

Pre-requisite: Course 4, or its equivalent.

26—Taxonomy of gramineæ—Study of the diagnostic characters and relationships of the principal genera. Field and laboratory work. Not less than ten hours a week for one year. Mr. NASH

Pre-requisite: Course 2, or its equivalent.

27—Physiology of nutrition—Treated from a chemical standpoint. Not less than ten hours a week for three years. Dr. MACDOUGAL

Pre-requisites: Courses 3 and 7, or their equivalent.

28—Ecological physiology—Problems in adaptive reactions in form, structure, and movements to external energy and environmental factors. Field and laboratory work. Not less than ten hours a week for three years. Dr. MACDOUGAL, Dr. CURTIS, Professor LLOYD

Pre-requisites: Courses 3 and 7, or their equivalent.

29—Physiological anatomy—Problems in the relationships of tissues and functions. Laboratory work. Not less than ten hours a week for three years. Dr. CURTIS

Pre-requisites: Courses 3 and 7, or their equivalent.

Equipment

The department of Botany occupies the third floor of Schermerhorn and the laboratories and lecture-rooms have been newly equipped for undergraduate work. A large general laboratory, lecture-room, and morphological and physiological laboratories are supplied with modern instruments for instruction and experiment. The courses of instruction are illustrated with extensive series of models, charts, and lantern-slides. Fresh material is supplied from the conservatory and aquaria. A sufficient number of standard botanical works and serials on the subject are reserved for students' use in the general laboratory, where they will be more directly available in connection with the laboratory practice.

By the agreement entered into between the University and the New York Botanical Garden, all the botanical collections and library of the University (except such works as are needed in the undergraduate work) have been deposited in the museum of the Botanical Garden at Bronx Park; the Garden on its part supplies all the needed facilities for research. This combination of forces not only places the department of Botany within reach of material equipment and collections not before available, but opens up facilities for advanced work under conditions that are not excelled.

The museum of the New York Botanical Garden is located in Bronx Park, near the Bedford Park Station of the Harlem division of the N.Y.C. & H.R.R.R., and its entire upper floor is devoted to research. The library is housed under the dome and in a stack-room extension to the rear. The physiological and morphological laboratories occupy the western end, and the taxonomic laboratories and herbarium the eastern end. The present floor space for the laboratories, library, and herbarium amounts to 19,000 square feet, in addition to which some space is afforded for special purposes on the basement floor. The laboratories include a suite of fourteen rooms, giving separate facilities for work in the main divisions of the subject. The equipment includes a supply of the apparatus necessary for research. Among the special features provided are to be mentioned the dark rooms, photographic operating and balance room, constant-temperature chambers, and sky-lighted apartment for living plants which is furnished with a suitable aquarium. Ample opportunity for experimental work is afforded by the open-air plantations and extensive horticultural houses.

The Columbia herbarium is housed in the large room in the east wing of the Botanical Museum, where the extensive collections of the New York Botanical Garden can be consulted in connection with it. The University collection itself contains about 500,000 specimens, being one of the largest in America. It comprises: (1) The collections accumulated by Dr. Torrey, which came into the possession of the University at his death in 1873. (2) The collections of Prof. C. F. Meisner of Basle, Switzerland, presented to the University about the time of Dr. Torrey's death by Mr. John J. Crooke. (3) The collections of

Dr. A. W. Chapman of Apalachicola, Florida, presented by Mr. Crooke at the same time; this contains the types illustrating Dr. Chapman's *Flora of the Southern United States.* (4) The moss collection of the late C. F. Austin. (5) The moss collection of the late Dr. J. G. Jaeger, acquired in 1893. (6) Miscellaneous accumulations of spermaphytes, since Dr. Torrey's death, now making up more than one third of the whole collection. (7) A large series of algæ including European exsiccatæ and recent American collections. The herbarium is rich in types of species described by Dr. Torrey, Professor Meisner, Dr. Chapman, Dr. Asa Gray, Mr. Austin, Professor Britton, Dr. Rusby, Dr. Morong, and Dr. Small; each sheet is identified by a designative label or stamp. There are also extensive collections of fruits, seeds, woods, and material illustrating economic botany, placed in cases and drawers.

The herbarium of the New York Botanical Garden contains among others the Ellis collection of fungi, the largest accumulation of North American plants of this series in existence, rich in types of American species, as well as extended series of European exsiccatæ. The private collection of the Professor of Botany, specially rich in pteridophytes, hepaticæ, and basidiomycetous fungi, is also accessible for study. The entire aggregation of collections thus available for students is exceptionally full in every group of plants from slime moulds to composites.

The additions mounted for the combined collections during the year ending January 1, 1900, amounted to 120,000 specimens.

The portion of the University Library classified under Botany is deposited in the library stack-room of the Museum building, where it can be consulted in connection with the extensive supplementary collection now owned by the New York Botanical Garden. The University Library now contains about 5000 bound volumes pertaining to Botany, together with about 4000 pamphlets and extracts; the Garden library supplements this by about 3000 volumes. These numbers, however, do not represent the whole reference strength of the collection, for all general works, scientific journals, and the publications of general scientific societies are shelved in the main Library of the University. All the regularly published journals devoted to Botany proper (about seventy-five) are received and the sets of all except one or two minor publications are complete.

Two series of publications are issued from the department: a quarto series known as the *Memoirs of the Department of Botany*, of which two volumes have been published; and the *Contributions from the Department of Botany*, in octavo, which have nearly completed the seventh volume.

Chemistry

CHARLES F. CHANDLER, M.D., Ph.D., LL.D., D.Sc. . *Professor of Chemistry*
CHARLES E. PELLEW, E.M. . . . . *Adjunct Professor of Chemistry*
JAMES S. C. WELLS, Ph.D. . . . . *Instructor in Analytical Chemistry (Qual.)*
HERMANN T. VULTÉ, Ph.D. . . . . *Instructor in Chemistry (School of Medicine)*
EDMUND H. MILLER, Ph.D. . . . . . *Instructor in Analytical Chemistry (Quant.) and Assaying*
MARSTON T. BOGERT, A.B., Ph.B. . . . . *Instructor in Organic Chemistry*

† Margaret E. Maltby, Ph.D.	*Instructor in Chemistry in Barnard College*
Louis H. Laudy, Ph.D.	*Tutor in General Chemistry*
Milton C. Whitaker, M.S.	*Tutor in General Chemistry*
J. Livingston Rutgers Morgan, B.Sc., Ph.D.	*Tutor in Chemical Philosophy and Chemical Physics*
Samuel A. Tucker, Ph.B.	*Tutor in Industrial Chemistry*
George A. Goodell, A.M.	*Tutor in Chemistry (School of Medicine)*
Hardee Chambliss, Ph.D., M.S.	*Assistant in Chemistry (School of Medicine)*
Wolfram E. Dreyfus, Ph.D.	*Assistant in Analytical Chemistry (Qual.)*
Barry Hogarty, B.S.	*Assistant in Analytical Chemistry (Assay)*
Alfred Tingle, Ph.D.	*Assistant in Analytical Chemistry (Quant.)*
Charles Edward Caspari, Ph.D.	*Assistant in Organic Chemistry*
Arthur C. Neish, A.M.	*Assistant in Analytical Chemistrv (Qual.)*
† Eleanor Keller, A.B.	*Assistant in Barnard College*
Henry C. Sherman, Ph.D	*Lecturer in Analytical Chemistry*
Cavalier Hargrave Jouët, Ph.D.	*Lecturer in Analytical Chemistry*

Courses

1—General inorganic chemistry—Introduction. Laws of chemical combination, history, occurrence, preparation, and properties of the elements and their principal compounds. Text-book: Newth's *Inorganic Chemistry.* 3 lectures and 1 recitation throughout the year. Professor CHANDLER, Dr. LAUDY, Mr. WHITAKER, and Mr. TUCKER

Required of all first-year students in the Schools of Mines, Chemistry, and Engineering. Open as an elective to all classes in Columbia College, with 2 afternoons in laboratory practice and conference, either the first or second half-year; instead of 1 recitation.

Laboratory practice comprises the preparation, physical and chemical properties, and tests of the principal inorganic elements and compounds. Text-book: Williams' *Chemical Experiments, General and Analytical.* Mr. WHITAKER

Required of Columbia College students who elect Chemistry 1.

2—General inorganic chemistry—Introduction. Laws of chemical combination, history, occurrence, preparation, and properties of the elements and their principal compounds. Text-book: Newth's *Inorganic Chemistry.* 2 lectures a week throughout the year. Given at the School of Medicine in West 59th Street. Professor PELLEW and Dr. CHAMBLISS

Laboratory practice comprises the preparation, physical and chemical properties, and tests of the principal inorganic elements and compounds. Text-book: Pellew's *Laboratory Exercises in General Chemistry.* 2 afternoon exercises in the laboratory and 2 conferences a week for half the year. Half the class during the first half-year; the other half during the second half-year. Dr. VULTÉ, Mr. GOODELL, and Dr. CHAMBLISS

Required of first-year students in the School of Medicine. Open as an elective to seniors in Columbia College.

10—Advanced inorganic chemistry, with special reference to the rarer elements, and modern chemical theories. 1 lecture a week throughout the year, on Saturdays. Not given this year.

Open to advanced students.

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† On Barnard College Foundation.

3—Elementary physical chemistry—Including an introductory course in the theory of the behavior of substances in solution, as applied particularly to analytical methods. 3 hours a week in lectures and recitations, and 1 afternoon a week in the laboratory throughout the year. Text-books: Morgan's *Theory of Solution ;* Ostwald's *Physico-chemical Measurements ;* and Wiedemann-Ebert's *Physikalisches Prakticum.* Dr. MORGAN

Required of all second-year students in the School of Chemistry. Open as an elective to students in Columbia College. Pre-requisites: Chemistry 1 and Physics 1.

4—Physical chemistry—A course treating of the states of aggregation, solution, and ions in analytical chemistry, thermo-chemistry, chemical mechanics, and electro-chemistry. 3 hours a week in lectures and recitations during the entire fourth year, and 1 afternoon a week in the laboratory during the first half-year. Text-books: Morgan's *Elements of Physical Chemistry*, and Ostwald's *Physico-chemical Measurements.* Dr. MORGAN

Required of all fourth-year students in the School of Chemistry. Open as an elective to seniors in Columbia College, and to candidates for the degrees of A.M. and Ph.D. as a minor, or with additional laboratory work, as a major subject. Pre-requisites: Chemistry 1 and Physics 1.

5—Physical chemistry, advanced course—2 lectures, and at least 12 hours a week in the laboratory throughout the year. Original investigation and reports of new work from the journals. Dr. MORGAN

Open to candidates for the degree of Ph.D. as a major subject. Pre-requisites: Chemistry 1 and 4; Physics 1.

7—Qualitative analysis—Lectures, conferences, and laboratory practice. Text-book: Wells' *Inorganic Qualitative Chemical Analysis.* 2 lectures or conferences a week during the first half-year, 4 lectures or conferences for chemists and metallurgists during the second half-year, 2 lectures or conferences for other courses, and laboratory practice throughout the year. Dr. WELLS, Dr. DREYFUS, Mr. WHITAKER, and Mr. NEISH

The laboratory practice for chemists and metallurgists consists of 16 hours a week for alternate weeks; for mining engineers, 11½ hours a week, during alternate weeks; for electrical engineers, 13½ hours a week for alternate weeks; for mechanical engineers, 8¼ hours a week for every week; for civil engineers, 13½ hours during alternate weeks.

Required of first-year students in the Schools of Mines, Chemistry, and Engineering. Open as an elective to sophomores, juniors, and seniors in Columbia College. Pre-requisite: Course 1.

8—The spectroscope as applied to qualitative and quantitative analysis—Laboratory practice and conferences with the instructor. 20 hours a week for one year. Dr. WELLS

Open to candidates for the degree of Ph.D. as a major. Pre-requisites: Courses 1 and 7.

9—Quantitative analysis—Text-books: Cairns' *Quantitative Analysis ;* Fresenius' *Quantitative Analysis ;* and Miller's *Calculations of Analytical Chemistry.* 4 hours lectures and recitations a week during the second year, and 18 hours laboratory practice. Dr. MILLER and Dr. JOUËT

The analyses made under this course are as follows: Magnesium sulphate, sodium or other chloride, potassium alum, iron ammonia alum, coal, iron ore, pig-iron, spiegel, limestone, slag, feldspar, ores of zinc, copper, nickel, lead, chromium, arsenic, antimony, alloys, rocks, gas analysis, etc.

Required of second-year students in the School of Chemistry and the course in Metallurgy. Open to candidates for the degree of A.M. as a major. Pre-requisites: Courses 1 and 7.

11—Quantitative analysis, inorganic, short course. Text-book: Miller's *Notes on Quantitative Analysis for Electrical Engineers.* 2 hours lectures and recitations a week, and 70 hours laboratory practice during the first half-year. Dr. MILLER and Dr. TINGLE

The analyses included in this course are: Magnesium sulphate, potassium alum, coal, iron ore, copper, and zinc ore.

Required of second-year students in the course of Electrical Engineering. Pre-requisites: Courses 1 and 7.

12—Quantitative analysis, inorganic. Text-books: Cairns's *Quantitative Analysis* and Miller's *Calculations of Analytical Chemistry.* 1 lecture or recitation a week during the first half-year and 2 lectures or conferences a week during the second half-year, with laboratory practice 18 hours a week in the second half-year. Dr. MILLER and Dr. JOUËT

The analyses included in this course are: Magnesium sulphate, potassium alum, iron ammonia alum, coal, iron ore, pig-iron, spiegel, zinc ore, limestone, slag, and copper ore.

Required of second-year students in the course of Mining Engineering. Pre-requisites: Courses 1 and 7.

13—Quantitative analysis—Proximate organic and sanitary analysis. 2 lectures, 2 recitations a week, and laboratory practice first half-year. Chemists, analytical and organic, 18 hours a week; chemists, industrial, 12 hours a week. Dr. SHERMAN

The analyses included in this course are: Water, fertilizers, soda ash, vinegar and acetates, argol, baking powder, alcoholic beverages, flour, sugars, milk, butter, oils, soap, paints, asphalts, etc.

Required of third-year students in the School of Chemistry. Open to candidates for the degree of A.M. as a major, for Ph.D. as a minor. Pre-requisites: Courses 1, 7, and 9. Pre-requisite or parallel 3.

14—Advanced inorganic analysis. 2 lectures a week throughout the year. Laboratory practice 3 afternoons and Saturdays during the first half-year for students taking the course in Metallurgy, and the second half-year for students in the course of Analytical Chemistry, who elect this course in place of Course 15. Dr. MILLER

Commercial analytical methods and practice connected with lead, zinc, iron, copper, and nickel metallurgy, fuels, building and paving materials; also the determination of some of the rarer elements.

Required of fourth-year students in the courses of Analytical Chemistry and Metallurgy. Open to candidates for the degree of Ph.D. as major, with laboratory work and research throughout the year. Pre-requisites: Courses 1, 3, 7, and 9.

15—Advanced proximate organic analysis. 2 lectures a week throughout the year. Laboratory practice during the second half-year 3 afternoons and Saturdays for students in the course of Analytical Chemistry, who elect this course in place of Course 14. Dr. SHERMAN

Commercial analytical methods and practice connected with tanning, dairy, prepared food, sugar and oil industries; also investigation of proteids, carbohydrates, fats, fatty acids, etc., in foods and other materials.

Required of fourth-year students in the course of Analytical Chemistry. Open to candidates for the degree of Ph.D. as a major, with laboratory work and research throughout the year. Pre-requisite or parallel: Course 13. Pre-requisite courses 1, 3, 7, and 9.

16—Quantitative analysis, special methods, gravimetric, volumetric, or electrolytic. Conferences and laboratory work at least 16 hours a week for one year. Dr. MILLER

Open to candidates for the degrees of A.M. as a major, Ph.D. as a minor. Prerequisites: Courses 1 and 7.

17—Assaying—Ores and metallurgical products. Text-book: Ricketts' and Miller's *Notes on Assaying.* 2 lectures and conferences a week, and laboratory practice, during the first half-year for mining engineers; during the second half-year for chemists and metallurgists. Dr. MILLER and Mr. HOGARTY

The assays included in this course are: Preliminary (making and testing reagents); lead, antimony, and tin ores; gold and silver ores, pure and impure, including galena, stibnite, arsenopyrite, blende, pyrite, etc.; mattes and tailings; corrected assays and extraction tests; assay of gold, silver, and lead bullions.

Required of all third-year students in the courses of Mining Engineering, Metallurgy, and Chemistry. The laboratory work for the mining engineers, 16 hours a week during the first half-year; for metallurgists and chemists, 16 hours a week during the second half-year. Open to candidates for the degrees of A.M. and Ph.D. as a minor. Prerequisites: Courses 1 and 7, and Mineralogy 1.

18—Special methods of assaying ores, alloys, and furnace products—Comparison of methods and determination of losses. Conferences and laboratory work at least 8 hours a week for one half-year. Dr. MILLER and Mr. HOGARTY

Open to candidates for the degree of A.M. or Ph.D. as a partial minor. Pre-requisites: Courses 1, 7, and 17, and Mineralogy, 1.

20—Organic chemistry, elementary course—Subject treated in a popular manner. Instruction given on such important classes of compounds as the hydrocarbons, alcohols, ethers, organic acids, fats, waxes, soaps, cyanides, carbohydrates, alkaloids, coloring matters, drugs, perfumes, and the like. Text-book: Remsen's *Organic Chemistry.* 2 lectures and 1 recitation a week. Mr. BOGERT and Dr. CASPARI

Required of all third-year students in the School of Chemistry. Minor for the degree of A.M. Open to seniors in Columbia College, and to any other students in Columbia University who are properly qualified. Pre-requisite: Course 1.

30—Organic chemistry, elementary laboratory course—Devoted to the preparation of such substances as chloroform, iodoform, ether, urea, nitrobenzol, anilin, acetanilid, sulphanilic acid, carbolic acid, salicylic acid, decomposition and recomposition of oil of wintergreen; perfumes, drugs, dyestuffs, flavoring principles, being represented in the series. The student also makes a number of ultimate analyses and vapor-density determinations. Text-book: Noyes' *Or-*

ganic Chemistry for the Laboratory. 8 hours a week, both terms, in Organic Laboratory. Mr. BOGERT and Dr. CASPARI

Minor for the degree of A.M. Pre-requisites: Courses 1, 3, 7, 9, and 20 (or, it may be taken at the same time with Course 20).

21—General organic chemistry—A more thorough treatment of the subject, including discussion of all the more important classes of organic compounds. The student also prepares in the laboratory a large number of typical organic compounds, besides making ultimate analyses and vapor-density determinations. Text-books: Bernthsen's *Kurzes Lehrbuch der organischen Chemie* and Gattermann's *Practical Methods of Organic Chemistry.* During the first half-year, 3 lectures, 1 recitation, and 20 hours laboratory a week for all fourth-year students in the School of Chemistry; 2 hours conferences additional a week for fourth-year students pursuing the course in Organic Chemistry, and for the students taking the course as a major for A.M. During the second half-year, 2 lectures and 1 recitation a week, for fourth-year students pursuing the courses in Industrial or Analytical Chemistry; 2 hours conferences and 16 hours laboratory additional a week for fourth-year students pursuing the course in Organic Chemistry. Mr. BOGERT and Dr. CASPARI

Required of all fourth-year students in the School of Chemistry. Major for the degree of A.M. Pre-requisites: Courses 1, 3, 7, 9, and 20.

22—Advanced organic chemistry, minor courses—Any one of the following subjects: (1) Physical properties of organic compounds as related to their molecular constitution; (2) Dissociation coefficients of organic acids; (3) The terpenes and camphors; (4) Synthetic alkaloids; (5) Synthetic perfumes; (6) Synthetic drugs; and such other subjects as may be selected. Conferences and laboratory work not less than 12 hours a week. Mr. BOGERT

Minor for the degree of Ph.D. Pre-requisites: Courses 1, 3, 7, 9, and 21.

23—Advanced organic chemistry, major course—Original investigation and research. Subject to be assigned or approved by the Instructor. Personal instruction, conferences, private study, and laboratory work not less than 18 hours per week. Mr. BOGERT

Major for the degree of Ph.D. Pre-requisites: Courses 1, 3, 7, 9, and 21.

24—Industrial chemistry, general course—The subjects discussed are: (1) Air; nature, sources of contamination, sewer gas, plumbing, draining, disinfection, ventilation. (2) Water: composition of natural waters, pollution, disposal of sewage and house refuse. (3) Artificial illumination: candles, oils and lamps, petroleum, gas and its products, electric light. (4) Limes, mortars, and cements. (5) Building-stones: decay and preservation. (6) Timber and its preservation: pigments, paints, essential oils, varnishes, preserving processes. (7) Explosives: gunpowder, gun-cotton, nitro-glycerine. (8) Glass and ceramics. (9) Electro-metallurgy. (10) Photography. Text-books: Park's *Hygiene* and Wagner's *Chemical Technology.* 3 lectures and 1 recitation a week. Professor CHANDLER and Professor PELLEW

Required of all second-year students in the Schools of Mines, Chemistry, and Engineering. Open to juniors and seniors in Columbia College. Pre-requisite: Course 1.

25—Industrial chemistry, special course—The subjects discussed are: (1) Chemical manufactures: acids, alkalies, and salts. (*a*) Sulphur, sulphurous acid, hyposulphites, sulphuric acid, bisulphide of carbon. (*b*) Common salt, soda ash, hydrochloric acid, chlorine, binoxide of manganese, bleaching powder, chlorates, chlorimetry. (*c*) Carbonate of potash, caustic potash. (*d*) Nitric acid and nitrates. (*e*) Iodine, bromine. (*f*) Sodium, aluminum, magnesium. (*g*) Phosphorus, matches. (*h*) Ammonia salts. (*i*) Cyanides. (*j*) Alum, copperas, blue vitriol, salts of magnesia, baryta, strontia. (*k*) Borates, stannates, tungstates, chromates. (*l*) Salts of mercury and silver. (*m*) Oils, fats, soaps, and glycerine. (2) Food and drink: milk, cereals, starch, bread, meat, tea, coffee, sugar, fermentation, wine, beer, spirits, vinegar, preservation of food. (3) Clothing: textile fabrics, bleaching, dyeing, calico printing; paper, tanning, glue, india-rubber, guttapercha. (4) Fertilizers: guano, superphosphates, poudrettes. Text-books: Wagner's *Chemical Technology;* Lunge's *Manufacture of Sulphuric Acid and Soda;* Schultz' and Julius' *Kuenstlichen Organischen Farbstoffe;* Schultz' *Chemie des Steinkohlentheers.* 3 lectures and 1 recitation for two years, one half the subject being discussed each year. Professor CHANDLER and Professor PELLEW

Required of third- and fourth-year students in the School of Chemistry. Pre-requisites: Courses 1 and 24.

26—Industrial chemistry, laboratory practice—Preparation of chemicals, including solution, filtration, evaporation, crystallization, and distillation, as used in factory practice. 2 afternoons a week during the second half-year. Professor PELLEW and Mr. TUCKER

Required of all third-year students in the School of Chemistry. Open to juniors and seniors in Columbia College. Open as a minor to candidates for A.M. Pre-requisite: Course 1.

27—Industrial chemistry, laboratory practice—Special applications: Textile industry, vegetable and animal fibres, bleaching, dyeing, and calico printing. 2 afternoons a week during the first half-year. Professor PELLEW and Mr. TUCKER

Required of third-year students taking the course in Industrial Chemistry, and of fourth-year students taking the courses in Analytical and in Organic Chemistry. Open to juniors and seniors in Columbia College. Minor for the degrees of A.M. and Ph.D. Pre-requisite: Course 1.

28—Industrial chemistry, laboratory practice—Special applications: Water pollution and purification; photometry; electro-metallurgy; fermentation, yeast, beer, wine, spirits, alcohol. 5 afternoons a week during the second half-year. Professor PELLEW and Mr. TUCKER

Required of fourth-year students taking the course in Industrial Chemistry. Open to seniors in Columbia College. Minor for the degree of A.M. or Ph.D. Pre-requisites: Courses 1 and 7.

29—Industrial chemistry, advanced course—Original research; the study and investigation of methods and processes in sanitary and industrial chemistry. Personal instruction and laboratory work for one year. Professor PELLEW and Mr. TUCKER

Major for the degree of Ph.D. Pre-requisites: Courses 1, 7, 9, and 24.

Excursions and Summer Work

During the session the students will visit the chemical, electrical, and metallurgical establishments of the city and its environs.

At the end of the college year the students of the second and third classes attend a summer school in industrial chemistry, under the direction of the instructors in that subject, spending three weeks in visiting and carefully studying chemical works of special interest in and near the city, as well as gas works, petroleum refineries, sugar refineries, dyeing and calico-printing establishments, soap, candle, and oleomargarine works, paper mills, and plants for the purification of water and of sewage.

During the summer vacations drawings or memoirs, on subjects which will be assigned, are required, as well as reports upon chemical works and manufactories which will be visited in company with the instructors in Industrial Chemistry. The time specified for the completion and handing in of the memoirs is November 1 of each year.

The drawings or memoirs must be accompanied with translations, of greater or less length, from French and German text-books or scientific periodicals upon subjects assigned to each student.

Equipment

In Havemeyer Hall the chemical department is provided with ample space for its museum, lecture-rooms, and laboratories, and every convenience has been provided for both instructors and students working in the general or special courses.

There are five chemical lecture-rooms, all fully supplied with apparatus and instruments, and equipped with pneumatic troughs, gas, pressure, exhaust, and electricity. The large chemical lecture-room on the ground floor contains 316 seats. Underneath the rear of this room is situated a large storeroom for lecture apparatus, and connected with it are convenient rooms for preparing the lecture experiments.

The Museum of General Inorganic and Organic Chemistry and of the Chemical Arts, a large and lofty room occupying the whole left wing of the ground floor, contains the elements and all their more important compounds; representative sets of specimens of all classes of organic compounds; materials and products illustrating the chemical arts, and numerous models, pictures, and diagrams illustrating the various branches of the science of chemistry.

The Qualitative and General Chemistry Laboratory is equipped with one hundred and twelve desks, each divided into two sections, for use by different students, and each equipped with sink and water faucet, gas, exhaust, and electric light. The laboratory has been entirely refurnished with new and handsome sets of imported reagent bottles. In the General Chemistry Laboratory the students of Columbia College are taught, in a thorough manner, to prepare the more important elements and their inorganic compounds, and to study the principal physical and chemical properties of the same.

In the Qualitative Laboratory, the reactions of the various metals and salts are taught with a view to their separation and identification.

The students begin at once with the separation of the members of the different groups, starting with the alkalies, and as soon as the work on one group is satisfactory, they pass on to the next, and then to combinations of the two groups, and so on until they are familiar with the separation of all the common metals and acids.

A record is kept of each substance given out for analysis and when the results are reported a mark is given, and, at the end of the year, each student who has completed the required amount of work and whose average is 8 or over (scale of ten) is exempt from the final examination. From the beginning of the course simple minerals and later on those of more complex composition and alloys, etc., are given out for analysis.

The Quantitative Laboratory is equipped with seventy-two desks, each one provided with gas, water, pressure, exhaust, and electricity, besides electric lights. The students first analyze substances of known composition, such as crystallized salts, so that they may constantly check the accuracy of their work by reference to the true percentage composition. Then they proceed to more complex analyses of materials that they would be apt to meet with in their actual practice, such as ores, metals, and minerals, and a great range of commercial articles, both organic and inorganic, such as gas, water, food products, and the like, which have been carefully analyzed so that the results of the students may be properly checked. Attached to the main laboratory is a large and well-equipped balance room, containing accurate balances, and special rooms, which are equipped with the latest and most improved apparatus for gas, water, and electrolytic analysis.

The Organic Laboratory contains forty large and commodious desks, each one provided with water, gas, pressure, exhaust, and electricity. The laboratory is also provided with high- and low-pressure steam, and with special rooms for balances, pressure ovens, glass-blowing, combustions, and for advanced work in various directions. It is thoroughly equipped with all necessary apparatus and instruments for the determination of boiling-points, melting-points, specific gravities, vapor densities, for ultimate analyses, and for the synthetic preparation of organic compounds.

The Laboratory of Industrial Chemistry is planned for the instruction of students in the practical operations of chemical manufactures and chemical industries, and in the solution of various important problems in sanitary chemistry and hygiene. It is equipped for the manufacture of pure chemicals from their raw materials on an industrial scale, with fine batteries of steam evaporators, and with steam stills, centrifugals, filter presses, crushers, and the like. It includes a dyeing laboratory supplied with a large stock of the most important natural and artificial dye-stuffs, and with all the regular equipment used in the practical testing of dyes, including a calico-printing machine. Connected with it is a photometer room, containing a new and complete outfit for the practical testing of illuminants. Among the other subjects in which practical instruction is given in this laboratory may be mentioned the filtration and purification of water and sewage, fermentation and distillation, and the manufacture of sugar, petroleum products, and leather.

A laboratory has recently been fitted up for the study of electro-chemistry, and fusion with the electric furnace. Every facility is to be found for the study of this most important branch of Industrial Chemistry.

The Laboratory of Physical Chemistry is well equipped with the most recent apparatus adapted to a wide range of experimental work in the branches of heat, light, and electricity as applied to chemical problems. The students take up the subject in the second year with special reference to the behavior of substances in solution. In their fourth year they resume the subject from a more advanced standpoint, and, with the aid of the higher mathematics, attack problems of broader range and greater difficulty. Towards the end of their course a simple original investigation is undertaken, which, if successful, is published by the student.

The Assay Laboratory is provided with crucible and muffle furnaces, both gas and coal, for the fire assay of ores; also with crushing, pulverizing, and sampling machinery, balance room, storeroom, and thirty-six well-equipped working desks. It also contains all the apparatus necessary for the wet assay of silver bullion and for laboratory tests of ores.

The Chemical Library in Havemeyer Hall is supplied with an excellent collection of chemical books and journals, and is open from 9.30 A.M. to 5.30 P.M. and from 8 P.M. to 10 P.M. during term time.

Comparative Literature

GEORGE EDWARD WOODBERRY, A.B............................*Professor*
JOEL ELIAS SPINGARN, Ph.D.......................................*Tutor*
JOHN GARRETT UNDERHILL, Ph.D..............................*Assistant*
LEWIS NATHANIEL CHASE, A.M..................................*Assistant*

Courses **1**, **2**, **3**, **4**, and **5** are open to students of the College; each counting three points toward the degree of A.B. They cannot be counted toward the higher degrees, and are not open to women.

Courses **6**, **7**, **8**, and Seminars **A**, **B**, and **C** are open only to graduate students, both men and women, and may all be counted toward the higher degrees. Candidates for the degree of Ph.D. in this department are required to take Courses **6**, **7**, and **8** in their first year, and Seminars **A**, **B**, and **C** in their second year of residence. Course **9** is open to auditors, and cannot count toward a degree.

Course **6** may be offered as a partial minor, Courses **7** and **8** as a full minor, and Seminars **A**, **B**, and **C** as a partial minor or major for A.M. or Ph.D.

Courses

1—Introduction to the study of literature: its forms, its common matter, its illustrative works. 3 hours. Professor WOODBERRY and Mr. CHASE

2—English literature from 1789 to the death of Tennyson, with some attention to Romanticism on the continent. 3 hours. Professor WOODBERRY

3—English literature from 1660 to 1789, with some attention to Classicism and the new forms of fiction on the continent. 3 hours. Mr. CHASE

4—English literature from the birth of Shakespeare to 1660, with some attention to the character of the Italian Renaissance. 3 hours. Professor WOODBERRY

5—The theory, history, and practice of criticism, with special attention to Aristotle, Boileau, Lessing, and English and later French writers, with illustrations from works of imagination. 3 hours. Professor WOODBERRY and Dr. SPINGARN

Pre-requisite: at least two courses in the department of Comparative Literature.

6—Studies in literature, mainly critical. 2 hours. Professor WOODBERRY and Dr. SPINGARN

7—History of lyric poetry in the Middle Ages and the Renaissance. 3 hours. Dr. SPINGARN

8—The revival of Romanticism in the eighteenth century. 3 hours. Dr. UNDERHILL

9—Aspects of modern poetry—A course of Forty-eight Lectures in Four Sections. I. The Precursors of the Nineteenth Century. II. The Revolutionary Poets. III. The Victorian Poets. IV. The Victorian Decadence. Professor WOODBERRY, Dr. SPINGARN, Dr. UNDERHILL, Mr. CHASE

Seminar A—Subjects for 1900–01: I. The Oriental influence in English literature from the foundation of the East India Company. II. The philosophy of literary movements, considered by means of an analysis of the evolution of form in poetic art with reference to its logical and moral conditions. 2 hours. Professor WOODBERRY

Pre-requisites: Courses 6, 7, and 8.

Seminar B—Subjects for 1900–01: I. The early English Renaissance. II. Erasmus and Casaubon. 2 hours. Dr. SPINGARN

Pre-requisites: Courses 6, 7, and 8.

Seminar C—Subjects for 1900–01: I. Studies in Spanish literature, its characteristics and national traits, together with an examination of the diffusion of its influence through Europe. II. Calderon: the elements of his genius and the history of his theatre. 2 hours. Dr. UNDERHILL

Pre-requisites: Courses 6, 7, and 8.

Equipment

The officers of the department have given much attention to the requirements of their courses in the matter of learned publications, the books of specialists in literary topics, the particular collections grouped about great authors, and the rarer literature of the world of letters. The general subject of literary history and criticism and the latest phases of modern scholarship are well represented in the Library, and those subjects with which the courses directly deal are represented with unusual fulness. A special effort has been made to gather beforehand the literature of subjects for research, so that there may be no delay in providing such material. In the last few years several thousand volumes have been purchased by the head of the department with a particular view to the needs of students, and it is believed that, within the limits of study, the collections are ample; and whatever books prove to be required will be at once obtained. Substantially all periodicals of the literary or learned world are currently received, and in files of such publications, transactions of societies, and the like the Library is uncommonly rich, as well as in foreign dissertations. These are the treasuries of information for minute research. In the Library a special study room is provided for the department, in immediate communication with the books relating to its specific subject. In this room the seminars of the department are held.

Societies

Kings Crown is an undergraduate club, intended especially for students in the College pursuing courses in the department or their friends of literary interests. It is primarily a social club, but it possesses a room and a small library of books used in the courses. It is, from time to time, addressed by distinguished men of letters, who thus cultivate a love of literature among the students and a live respect for it. The membership of the club is about one hundred and twenty-five.

The Comparative Literature Club was formed the past year and is partly scholarly, partly social in its nature. Its aims are still undefined by practice, but the want of a common meeting ground for the graduate students has been so much felt that its social value can hardly be over-estimated; and it will doubtless prove possible to accomplish much for the department by combined effort that will turn to the advantage of all in scholarly ways.

Dermatology

George Henry Fox, A.M., M.D.	*Clinical Professor*
George Thomas Jackson, M.D.	*Chief of Clinic and Instructor*
John Cabot, M.D.	*Clinical Assistant*
John H. P. Hodgson, M.D.	*Clinical Assistant*
John Aldrich, M.D.	*Clinical Assistant*
Charles T. Dade, M.D.	*Clinical Assistant*

Courses

1—Clinical lectures at the Vanderbilt Clinic upon the diseases of the skin. 1 hour. Professor Fox

Required, in the fourth year, of candidates for the degree of M.D.

2—Practical instruction at the Vanderbilt Clinic in the diagnosis and treatment of the diseases of the skin. 12 lessons for each student. Dr. Jackson

Required, in the fourth year, of candidates for the degree of M.D.

Diseases of Children

Abraham Jacobi, M.D., LL.D.	*Professor*
Francis Huber, M.D.	*Chief of Clinic and Instructor*
Joseph Huber, M.D.	*Clinical Assistant*
Ferdinand S. MacHale, M.D.	*Clinical Assistant*
Louis M. Silver, M.D.	*Clinical Assistant*
Albert F. Brugman, M.D	*Clinical Assistant*
Bernard Sour, M.D.	*Clinical Assistant*

Courses

1—Clinical lectures at the Vanderbilt Clinic upon the diseases of children. 1 hour. Professor JACOBI

Required, in the fourth year, of candidates for the degree of M.D.

2—Practical instruction at the Vanderbilt Clinic in the diagnosis and treatment of the diseases of children. 12 lessons for each student. Dr. FRANCIS HUBER

Required, in the fourth year, of candidates for the degree of M.D.

3—Hospital clinic—Roosevelt Hospital, Mondays and Thursdays at 5 P.M. from October to May. Professor JACOBI

Required.

Economics and Social Science

RICHMOND MAYO-SMITH, Ph.D	*Professor*
EDWIN R. A. SELIGMAN, LL.B., Ph.D	*Professor*
FRANKLIN HENRY GIDDINGS, Ph.D., LL.D	*Professor*
JOHN BATES CLARK, Ph.D., LL.D	*Professor*
WILLIAM ZEBINA RIPLEY, Ph.D	*Prize Lecturer*
ARTHUR M. DAY, A.M	*Instructor*
GEORGE J. BAYLES, Ph.D	*Prize Lecturer*

The courses offered fall into two divisions: Political Economy and Finance, and Sociology and Statistics. Economics A and 1 are the general introductory courses primarily intended for juniors in the College. Economics 3 and 4 are intended to give a general survey, respectively, of political economy and finance, from the historical and comparative point of view. While serving as useful courses for those intending to specialize still further in economics or sociology, they are especially recommended to those who desire to secure some knowledge of political economy as a part of a liberal education. Economics 1 to 8 will be found of especial value to law students seeking to supplement their purely legal studies. Sociology 15 and 16 are introductory courses leading up to Course 20. Sociology 20 and 21 are the general systematic courses laying the basis for the other courses in applied sociology. Sociology 15 to 24, together with Economics 3, 8, 11, and 12, will be of value to students of theology who wish to extend their knowledge of the social problems of the day.

In addition to the regular courses, there are two seminars, organized to furnish students opportunity for special investigation and original research. Every candidate for the degree of Master of Arts or Doctor of Philosophy, taking his major subject in this department, must work in at least one of the seminars.

The allied courses in history and public law will be found extremely useful for the students of social science, because of the close inter-relations of history, law, and economics. Taken together, these courses constitute a complete scheme of political science.

Economics A is required of juniors in the College, and open to sophomores who have taken Economics 1. Economics 1 is open to juniors and qualified sophomores in the College. Economics 3, 4, 11, and 12, and Sociology 15 and 16, are open to seniors in the College and other candidates for the degree of Bachelor of Arts. The remaining courses are intended for university students.

Courses in Political Economy and Finance

A—Outlines of economics—Recitations, lectures, and essays. 3 hours, second half-year. Professor MAYO-SMITH and Mr. DAY

1—Economic history of England and America—Selected text-books, recitations, essays, and lectures. 3 hours, first half-year. Professor SELIGMAN and Mr. DAY

3—Practical political economy—Lectures, discussions, and reading. 3 hours. Professor MAYO-SMITH

4—Science of finance—Lectures and private reading. 2 hours. Professor SELIGMAN

5—Fiscal and industrial history of the United States—Lectures and private reading. 2 hours, first half-year. Professor SELIGMAN

Omitted 1900-01.

7—Railroad problems, economic, social, and legal—Lectures and private reading. 2 hours, second half-year. Professor SELIGMAN

Omitted 1900-01.

8—History of political economy—Lectures, discussions, and readings. 2 hours. Professor SELIGMAN

9—Economic theory I—The static laws of distribution—Lectures and private reading. 2 hours, first half-year. Professor CLARK

10—Economic theory II—The dynamic laws of distribution—Lectures and private reading. 2 hours, second half-year. Professor CLARK

11—Communistic and socialistic theories—Lectures and private reading. 2 hours, first half-year. Professor CLARK

12—Theories of social reform—Lectures and private reading. 2 hours, second half-year. Professor CLARK

14—Seminar in political economy and finance—For advanced students. 2 hours. Professors SELIGMAN and CLARK

Courses in Sociology and Statistics

15—Principles of sociology—Recitations, lectures, and collateral reading. 2 hours. Professor GIDDINGS

16—Racial demography — Lectures and private reading. 2 hours, second half-year. Dr. RIPLEY

17—Statistics and sociology—Lectures, illustrations, and private reading. 2 hours, first half-year. Professor MAYO-SMITH

18—Statistics and economics—Lectures and private reading. 2 hours, second half-year. Professor MAYO-SMITH

19—Theory of statistics—Lectures and private reading. 2 hours, second half-year. Professor MAYO-SMITH

Omitted 1900-01.

20—Social evolution—Lectures and private reading. 2 hours, first half-year. Professor GIDDINGS

21—Progress and democracy—Lectures and private reading. 2 hours, second half-year. Professor GIDDINGS

22—Pauperism, poor laws, and charities—Lectures and private reading. 2 hours, first half-year. Professor GIDDINGS

23—Crime and penology—Lectures and private reading. 2 hours, second half-year. Professor GIDDINGS

24—Civil aspects of ecclesiastical organization—Lectures and private reading. 1 hour, first half-year. Dr. BAYLES

29—Laboratory work in statistics—Exercises in analyzing, criticising, and tabulating statistics; in connection with Courses 17, 18, and 19. 2 hours, bi-weekly. Professor MAYO-SMITH

30—Seminar in sociology—2 hours, bi-weekly. Professor GIDDINGS

Equipment

The library facilities are unexcelled. Every journal of importance, American or foreign, dealing with economics or social science, is taken regularly by the Library. Any book needed by advanced students can usually be bought at once. The special library of history and political science alone comprises more than sixty-five thousand volumes.

Students of economics and social science will find New York to be a centre of library facilities unrivalled elsewhere in this country. In addition to the University Library, there are rich treasures at the New York Public Library on the Astor, Lenox, and Tilden foundation, New York Historical Library, Long Island Historical Library, Library of the Charity Organization Society, the Bar Association Library, and the Law Institute Library, to each of which students have access under favorable conditions. Advanced students also have at their disposal the library of the Professor of Political Economy and Finance, which contains the most complete collection of works on political economy to be found in the United States.

The facilities offered to students of sociology include a large library of general and special works, and unusual opportunities for field-work. A generous gift for works on sociology has provided a very complete equipment of publications on sociological theory, the history of the family, pauperism, crime, and penology. Arrangements have been made with the Charity Organization Society, the State Charities Aid Association, the University Settlement, the East-Side House, and the Brooklyn Bureau of Charities by which students can become fully acquainted with actual work among the people and with the most perfect methods.

Education

(See Philosophy and Education.)

Electrical Engineering

(See page 102.)

ENGINEERING

Civil Engineering

WILLIAM HUBERT BURR, C.E	*Professor*
EARL B. LOVELL, C.E.	*Adjunct Professor*
ADOLPH BLACK, C.E.	*Tutor*
LLEWELLYN LE COUNT,* C.E.	*Assistant*

The four years' course leading to the degree of Civil Engineer is designed to afford a thorough analytical training, as well as numerous and extended practical exercises in those matters which pertain to the profession of the civil engineer, both in regard to all classes of structures and public works and in connection with the various developments and applications of power by the use of steam, electric, water, and air motors. This course is also designed to be an educational preparation for those duties or functions of an executive character, whose discharge in connection with the management of public or other works requires, or is rendered more efficient through, a thorough knowledge of civil engineering. The breadth and nature of this educational training adapt it no less efficiently to the purposes of those who intend to follow callings not of an engineering character, but which may be related more or less to manufacturing, to structural matters, or to the development and application of power. The theoretical portion of the instruction is based largely upon the courses given in the departments of Mathematics, Mechanics, and Physics, and the results obtained are applied to practical engineering work. Special stress is laid upon the design by the student of the various structures and machines which the civil engineer is called upon to construct in the practice of his profession. The instruction is given by lectures, demonstrations by the student, and frequent conferences, coordinate with which the work of design is continuously carried on. It covers comprehensively the subjects of surveying, road and railroad engineering, water supply of cities and towns, irrigation, sanitary engineering, including sewage disposal, both graphic and analytic treatment of all metallic structures, foundations, retaining and reservoir walls, high masonry dams, sewer systems, hydraulic engineering, rivers and harbors, pumping engines, hydraulic, steam, and electric motors.

Ample facilities are afforded for post-graduate students in civil engineering, and special students are admitted to the various engineering courses of the department upon evidence of proper qualifications.

Courses 1 to 17, inclusive, are required of all students in civil engineering. Courses 1, 5, 6, 15, 16, 17 are required of all students in mining engineering and metallurgy. Course 5 is required of all students in electrical engineering. All courses are open as electives to students who have had the requisite preparation to take them.

Courses

1—Theory of surveying — Pacing survey, contouring and levelling by hand-level—Construction, use, and adjustment of instruments—Farm survey—

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* Died November 14, 1900.

Theory of stadia measurement—Azimuth traverse—Repetition traverse—Polaris observations — Balancing survey. Text-book: Raymond's *Plane Surveying*. Reference book: Johnson's *Theory of Surveying*. 2 hours a week, second half first year. Mr. BLACK

2—Road engineering—Surveys and location of roads—Drainage and grades—Foundations—Selection and treatment of materials—Telford and McAdam pavements—City pavements of brick, Belgian and granite blocks, asphalt, cement, and concrete—Machinery and tools required in the construction of roads and pavements—Maintenance of roads and pavements—Elements of expense and total cost of construction and maintenance. Reference book: Byrne's *Highway Construction*. Lectures and recitations 2 hours a week, first half second year. Mr. BLACK

3—Water-supply engineering and irrigation—Rainfall and storage—Flow of streams—Influence of soils, elevation, and geological character of water-shed—Methods of supply, gravitation, pumping from rivers or natural underground storage, flow from the latter—Reservoir construction—Sedimentation and filtration—Distributing system—House supply and wastage—Irrigation of land—Amounts and periods of application—Construction of, and flow through, division and distributing canals. Reference books: Fanning's *Water Supply* and Wilson's *Irrigation Engineering*. Lectures and recitations 2 hours a week, second half second year. Professor LOVELL

4—Masonry structures—Pressure and abutting power of earth—Design and construction of retaining walls—Stability of masonry structures in general—Stability of towers and chimneys under wind pressure—Theory and design of arches with vertical and inclined loads—Theory and design of reservoir walls, earth and high masonry dams—Cement, concrete, and masonry. Reference books: Cain's *Retaining Walls* and Baker's *Masonry Foundations*. Lectures 1 hour a week during third year, with frequent conferences and continuous work in design. 2½ hours a week of problem and design work are required in the drawing academy. Cement and mortar testing in the cement-testing laboratory are required of all students. Professor LOVELL and Mr. BLACK

5—Elasticity and resistance of the materials of engineering—Laws of elasticity in homogeneous materials—Coefficients of elasticity—Relations between stresses and strains—Common and exact theories of torsion and flexure—Elastic limits, working stresses, and ultimate resistances of wrought-iron, cast-iron, steel, alloys, timbers, building-stones, cement, concrete, and masonry—Complete treatment of simple and continuous beams—The design and construction of iron, steel, and timber columns and beams, including the design and construction of plate girders—Shafts—Cables—Fatigue of materials—Specifications. 3 hours a week lectures and recitations during the first half third year, and 2 hours during the second half third year. 7½ hours a week first half-year, and 5 hours second half-year, of work in the testing laboratory and of problem and design work, are required in the drawing academy. Reference and text-book: Burr's *Elasticity and Resistance of Materials*. Professor BURR, Professor LOVELL, and Mr. LE COUNT

6—Graphic statics—Equilibrium polygon, and polygonal frames for all systems of loads—Graphical representations of shears and moments for both non-continuous and continuous beams—Fixed and moving loads—Lines of influence—Applications to bridge and roof trusses. 2 hours a week lectures during the second half third year. 5 hours of problem and design work are required in the drawing academy. Mr. BLACK

7—Analytical theory of trusses—The truss element—Simple cantilever and non-continuous trusses with parallel chords—Fixed and moving loads—Through and deck spans—Positions of any system of concentrated moving loads for greatest chord and web stresses when chords are both parallel and not parallel—Combination of movements and graphic methods—Skew and irregular trusses—Applications to bridge and roof trusses—Braced arches and arched ribs. 2 hours a week lectures during the second half third year, with frequent conferences and problems in computations of stresses and preparation of stress sheets. 5 hours a week of problem and design work are required in the drawing academy. Reference and text-book: Burr's *Stresses in Bridge and Railway Trusses.* Mr. BLACK

8—Sewage disposal—Treatment and disposal of sewage and refuse of manufacturing—Sedimentation by gravity and by chemical purification—Treatment of effluent by continuous and intermittent sand filtration—Fertilization—Intermittent application to soil with under-drainage—Disposal of sludge—Theory and construction of sand filters—Plants for sewage treatment—Pollution of potable water and its purification by continuous and intermittent sand filtration—Design of sand filter for water purification. 2 hours a week lectures first half third year. Professor BURR and Mr. BLACK

9—Railroad engineering—Train resistance, sources and probable value—Curvature and grades, their relation to velocity and maximum train-load—Effect of momentum—Reduction of grades at starting-point—Balance of grades for unequal traffic—Study of annual reports—Analysis of operating expenses—Cost of operating, including maintenance, per train mile—Itemized statements of costs and percentage to total cost—Cost of extra distance, curvature, rise and fall, or of additional trains—Effect of roadbed on cost of running trains—Justifiable expenditure in construction to save one mile of distance, one degree of curvature, one foot of rise and fall, or to reduce ruling grade .1 % per daily train per year—Pusher grade for one or more assistant engines—Economical use of pusher grades—Cost of excessive or limiting curvature—Value of additional traffic—Principles to follow in locating new lines—General policy of improvements in old lines—Principles in design and construction of railroad yards and terminals—Computations and detail drawings of turnouts, slip switches, and ladder tracks—Development and present practice in block signaling and interlocking, with problems in design and estimates of cost of installation—Classification and cost of earthwork—Graduation, cross-section in excavation and embankment, and protection of slopes—Ordinary and extraordinary methods of drainage—Water supply, its quality, storage, and delivery—Principles of construction of wooden trestles and masonry culverts, including preparation of standard plans and estimates of cost—Ballast—Track, track accessories, and maintenance of way details—Organization—Management. 3 lectures a week beginning Dec. 1, first half fourth year, and all of second half fourth year. 5 hours per week of problem and design work are required in the drawing academy. Reference books: Wellington's *Railway Location*, Elliott's *Block and Interlocking Signals*, Tratman's *Track and Track Work*, Haines' *American Railway Management*. Professor LOVELL

10—The design and construction of bridges, roofs, and buildings—Railway and highway bridges—Pin and riveted connections—Single and multiple systems of bracing—The design of details for bridges, roofs, and buildings—Floors for railway and highway bridges—The design and operation of drawbridges, including engines, locking, lifting, and turning machinery—Cantilever structures—Wind loads and stresses—Single- and double-track viaducts or trestles in iron, steel, and timber—Lateral and transverse systems of bracing—The design and construction of elevated railroads—The complete designs of railway structures, with estimates of cost—The erection of iron, steel, and timber structures, including the cost of erection. 2 hours a week lectures and recitations, fourth year, with frequent conferences and continuous work in design. 5 hours a week of problem and design work are required in the drawing academy. First half-year only for sanitary engineers. Reference and text-book: Burr's *Stresses in Bridge and Railway Trusses*. Professor BURR and Professor LOVELL

11—Foundations—Earth foundations—Foundations for buildings—Safe loads on masonry and foundation beds—Pile driving and pile foundations—Safe loads for piles—Protection and preservation of piles and timber—Sheet piling and coffer-dam methods—Pneumatic foundations and caisson work—Open dredging—Bridge piers of masonry and cylinders—Piers for deep foundations—Methods of working in quicksands—Tunnelling. Reference books: Patton's *Foundations* and Baker's *Masonry and Foundations*. 2 hours a week lectures, first half of fourth year, with frequent conference and continuous work in design. 5 hours a week of problem and design work are required in the drawing academy. Professor BURR

12—Hydraulics—Flow of water through orifices—Time required for discharge of canal locks and similar volumes—Weir discharge and gauging by weirs—Gauging of water for systems of irrigation—Flow through and discharge of pipes—Design of pipe systems for city water-works—The Venturi meter—Flow in and discharge of open canals and rivers—Gauging of streams by current meters, floats, and other means—Backwater—Impulse of streams—The motion and flow of air and other gases in and through pipes and orifices. Reference book: Merriman's *Hydraulics*. 2 hours lectures during first half fourth year, with laboratory work, frequent conferences and problems. Professor BURR and Mr. LE COUNT

13—The design and construction of sewers, and river and harbor improvements—Sewage and surface drainage of cities and towns—Separate and combined systems of sewers—Capacities of mains and branches—Catch basins—Manholes—Chimneys or ventilators—Flush tanks—Outfalls—Grades—Flow or discharge of sewers—Construction—Jetty system of river improvements—Scouring action of currents—Erosion of river banks—Dams for improvement of river navigation—Breakwaters—Dykes—Groins—Mattress work—Docks—

Harbor works—Iron piers—Estimates of cost. 2 hours a week lectures, second half fourth year, with frequent conferences. Professor Burr

14—Theory of railroad surveying—Simple, compound, and reversed curves—Transition curves—Switch work—Cross-section work—Earthwork computations—Office work. Lectures and practical problems. 1 hour a week, second half third year. Reference books: Searle's *Field Engineering* and Crandall's *Transition Curve and Earthwork.* Professor Lovell

The Summer School of Surveying

This school is conducted during ten to twelve weeks of each summer vacation at a point in the country near Litchfield, Conn., where ample facilities are provided for all requisite operations, and where the topography is admirably adapted to the practical work of surveying. The operations at the summer school include the entire actual surveying of the department of Civil Engineering, together with such lectures, computations, and mapping as pertain to it. About six weeks' continuous attendance is required of each class between the first and second, and the second and third years, and four weeks between the third and fourth years. The school possesses an unusually full equipment of engineers' and solar transits, levels, plane tables, compasses, and all accessories and smaller instruments. A corps of special assistants for each session aid the regular officers of the school. At each session the following courses are given:

15—Surveying between the first and second years—Pacing, chaining, and ranging—Farm survey—Adjustment of instruments—Angle reading by repetition—Repetition traverse—Azimuth traverse. Daily lectures, field and office work. Mr. Black

16—Surveying between the second and third years—Levelling—Topographical survey with plane table—City surveys—Mine surveying above ground—Use of solar attachment. Daily lectures, field and office work. Professor Lovell

16a—Hydrographic surveying—Triangulation—Topography on shore—Soundings—Current meter work—Computation of river or tidal discharge—Preparation of map. Professor Lovell, Mr. Black, and Mr. Le Count

17—Surveying between the third and fourth years—Railroad surveying—Reconnaissance—Preliminary survey—Location—Cross-sectioning—Computations—A complete survey and location of a line two to five miles long are made, with all the attendant computations requisite for placing the work under contract. Daily lectures, field and office work. Professor Lovell

Graduation Thesis

A satisfactory project or thesis is required of every candidate for the degree of Civil Engineer at graduation.

Courses in Sanitary Engineering

18—Sanitary engineering of buildings—Water-pipe systems—Treatment and disposition of all refuse and waste products—Trapping and ventilation of basins, closets, and sewer pipes—Drainage of buildings and building sites—Plumbing of buildings. 2 hours, first half second year.

19—General principles of hygiene and sanitary science—Effects of water supply on public health—Metallic pipes for water—Effects of impure air on health—Influence of conditions of soils on health—Remedial measures applicable to unsanitary conditions—Sewage air—Disposition of Sewage—Sanitary treatment of buildings—Contagious and other diseases. 2 hours, second half second year.

20—Heating and ventilation—General features of systems of heating and of ventilation—Steam heating—Hot-water heating—Heating with hot air—Hot-water circulation—Plant required in different systems of heating—Amounts of fresh air required in buildings devoted to various purposes—Modes of introducing fresh air and withdrawing foul air—Power for and capacities of systems of artificial ventilation—Complete designs for heating and ventilating plants. 2 hours, fourth year.

21—Drainage of country districts and towns—Requisite surveys—Effects of topography and character of materials—Surface and sub-surface waters—Disposal of drainage waters—Designs for drainage systems. 2 hours, second half fourth year.

University Courses

The minor subjects in the department of Civil Engineering for the university degrees of Master of Arts and Doctor of Philosophy are the following:

5—Elasticity and resistance of materials.

22—Foundations, including theory of earth pressure (Civil Engineering 11 with additional reading).

23—Hydraulics (Civil Engineering 12 with additional reading).

24—Long-span bridges. Conferences, with reading and design work, as required.

Open to those who have taken Civil Engineering 10.

25—Elastic and masonry arches. Conferences, with reading and design work, as required.

Open to those who have taken Civil Engineering 4.

The major subjects for the same university degrees are the following:

26—Sanitary engineering.

27—Hydraulic engineering, including the hydraulics of rivers and power plants and municipal water-works.

28—Municipal engineering, including water-works, sewers and sewage works, streets and other public works and their administration.

29—The engineering of structures, including long-span bridges and deep foundations, with methods of building them, and advanced work in elasticity and resistance of materials.

Equipment

The school possesses an unusually full equipment of engineers' and solar transits, levels, plane tables, compasses, and all accessories, as well as smaller instruments. Current meters, hook gauges, and floats of various types are also used in making observations on the flow in and discharge of rivers and canals. A complete set of sections of iron and steel shapes, models and photographs of engineering works, together with working plans of the latter, are in the department for the use of students. The hydraulic laboratory affords opportunity for the practical operations of measuring the discharge through weirs and other orifices, the flow through open channels and closed pipes, frictional and other resistances in pipes and open channels, as well as for meter gaugings, and for general hydraulic investigations. The testing work in the mechanical laboratory includes the complete tests of various structural materials in tension, compression, bending, and torsion, including the observation and digesting of all corresponding data.

A cement-testing laboratory is fully equipped with testing machines, briquette moulds, tanks, and other apparatus requisite for all classes of investigations in the nature and physical properties of cements and cement mortars. All students are required to make and test briquettes of cement and cement mortar as well as to ascertain the weight, fineness, and other physical properties of such cement, sand, and mortar as may be assigned to them for examination.

Students taking the course in Civil Engineering enjoy the use of the laboratories in all of the departments of the University in which they pursue courses of study, and their laboratory work in those departments is identical with that of students taking courses of engineering study in the same departments.

The Physical Laboratories are located in Fayerweather. The building is supplied with all ordinary facilities, including electricity for power and light, compressed air, and steam. In addition to such facilities there are a vertical shaft, with gas, electric, and water outlets at every ten feet of height; a constant-temperature room, placed twelve feet below the surface of the ground; a platform on the roof for meteorological instruments and observations, with a recording room; an apparatus room and a number of laboratories of various kinds. In the latter are found elaborate outfits of instruments and appliances for complete and accurate laboratory operations in all branches of physical science.

The laboratories of the department of Mechanical Engineering are available for the various kinds of laboratory work required in connection with the courses of study pursued in the department of Mechanical Engineering.

The workshops used by the students in Civil Engineering are located in the Macy Manual Arts building of the Teachers College. The locomotive laboratory, the steam and motive power engineering laboratory, the air and gas engine laboratory and hydraulic motors laboratory are all located in the large basement annex north of Engineering, and partly in Engineering and partly in the Power House. Their equipments include among other apparatus, as principal features, a triple-expansion Reynolds Allis Corliss steam-engine of 150 H. P.; a two-stage or compound steam air compressor; a De Laval steam turbine of 10 H. P.; a Wheeler surface condenser of 40 H. P. capacity; a pair of typical continuous rope drives on the American system, capable of transmitting 150 H. P.; a full-size passenger express locomotive engine of the Vauclain compound type; a duplex pumping engine of the triple-expansion low-pressure type; a second pump intended to operate against a pressure of 1500 pounds per square inch, and a third pump capable of working against a pressure of 5000 pounds per square inch.

Similarly the laboratories of the department of Electrical Engineering are available in all respects to the civil engineering students in those courses of study pursued in the department of Electrical Engineering. The electrical equipment is exceptionally complete in all the Electrical Engineering laboratories; it includes storage-battery and photometer rooms; direct- and alternating-current machinery; dynamos; stationary and railway motors; motor dynamos; complete sets of ampere and volt meters, speed indicators, transmission and absorption dynamometers, as well as complete outfits of machine and hand tools and all the various electric apparatus and appliances used in all branches of electrical engineering.

In addition to the actual equipment of the school, a great variety of large engineering works is continually in process of construction in New York City and vicinity, and the requisite steps are always taken to render them accessible to the students of the department for examination and study.

The library facilities consist of an extensive collection of foreign and domestic engineering books and periodicals, to which additions are being constantly made. The collection of engineering literature forms a part of the general library of the University, and is constantly available for both undergraduate and post-graduate study.

Electrical Engineering

FRANCIS B. CROCKER, E.M., Ph.D. .... *Professor*
GEORGE FRANCIS SEVER .... *Instructor*
FITZHUGH TOWNSEND, A.B., E.E. .... *Tutor*
C. SIDNEY AYLMER-SMALL, E.E. .... *Assistant*

The theoretical side of Electrical Engineering is treated in lectures delivered by Professor PUPIN of the department of Mechanics, under which head the various courses will be found. Mr. TOWNSEND assists the department of Mechanics by teaching Course 6 and part of Course 7 of that department.

See Mechanics 6, 7, 8, 9, 14, 14a, 15, 16, and 17.

Courses

1—Dynamo and motor practice—Principles, construction, operation, and design of dynamos and electric motors. Text-books: Crocker's *Electric Lighting*, vol. i.; Sever's *Laboratory Notes*. 3 hours, first half-year. Professor CROCKER and Mr. SEVER

Required of all third-year students in Electrical and Mechanical Engineering. Prerequisite: Course 7.

Course 1 with Courses 4 and 10 count together as a minor for the degree of A.M.

2—Electric power—Transmission and distribution of electric power, including the principles and applications of the direct-current, single-phase, and polyphase systems. 2 hours, first half-year. Professor CROCKER

Required of all fourth-year students in Electrical and Mechanical Engineering. Prerequisites: Courses 1, 4, and 10.

Course 2 with Courses 11, 22, and 23 count together as a minor for the degree of A.M. Pre-requisites: Courses 1, 4, and 10.

3—Electrochemistry and electrometallurgy ; including theory and applications of electrolysis and electrical heating ; theory and practice of primary and secondary batteries ; production, separation, and purification of chemicals and metals. 1 hour. Professor CROCKER

> Required of all fourth-year students in Electrical Engineering, Chemistry (Courses A, B, and C), and Metallurgy. Pre-requisite for electrical engineers : Course 7, Chemistry 7, and Mathematics 12 ; for students in Chemistry (Course B) : Course 5 ; for students in Chemistry (Courses A and C) : Chemistry 13 ; for students in Metallurgy : Course 5.

4—Electric lighting—The design, installation, and operation of electric-lighting systems and plants, including a discussion of each of the various elements and methods employed. Text-book : Crocker's *Electric Lighting*, vol. i. 3 hours, second half-year. Professor CROCKER

> Required of all third-year students in Electrical and Mechanical Engineering. Pre-requisite : Course 1.
>
> Course 4 with Courses 1 and 10 count together as a minor for the degree of A.M.

5—General electrical engineering—The principles of electrical engineering and their application to general engineering. 1 hour lecture and 1 afternoon laboratory work, second half-year. Professor CROCKER and Mr. SEVER

> Required of all third-year students in Civil, Sanitary, and Mining Engineering, Chemistry (Course B), and Metallurgy. Pre-requisite : Physics 1.

6—Telegraph and telephone. Text-books : Pope's *Modern Practice of the Electric Telegraph ;* Webb's *Practical Telephone Hand-book.* 1 hour. Professor CROCKER

> Required of all third-year students in Electrical Engineering. Pre-requisite : Course 7.

7—Elements of electrical engineering—General electrical principles, laws, measurements, and the introduction to their applications, including the elements of the dynamo. Text-book : Thompson's *Elementary Lessons in Electricity and Magnetism.* 1 hour, first half-year ; 2 hours, second half-year. Professor CROCKER and Mr. TOWNSEND

> Required of all second-year students in Electrical, Mechanical, and Civil Engineering. Pre-requisite : Physics 1.

8—Electric railway—Special instruction in design, installation, and operation of the various systems of electric railways. 2 hours, second half-year. Mr. SEVER

> Required of all fourth-year students in Electrical and Mechanical Engineering. Pre-requisite : Course 2.

10—Direct-current laboratory—Practice in the use of instruments and in the operation and testing of dynamos and motors, as follows :

1. Practice in the accurate use of volt meters and ammeters for the measurements of E. M. F.'s, currents, and resistances.
2. Examination of, and report on, a dynamo and motor.
3. Operation and testing of direct-current dynamos and motors.

(*a*) Measurement of the resistances of the various electrical circuits in a dynamo. Comparison of methods. Insulation tests. Determination of the heating limit under full-load conditions. Operation of various kinds of dynamos and motors. Investigation and measurement of counter E. M. F. in a motor.

(*b*) Determination of the efficiency of dynamos and motors by the use of transmission dynamometers and friction brakes. Use of electrical methods for the determination of the efficiencies of motors, dynamos, and motor-dynamos. Comparison of methods.

(*c*) Determination and plotting of the various characteristic curves of dynamos and motors, shunt, series, compound, and differential.

(*d*) Operation of the steam-engine, and use of the steam-engine indicator, in determining power of dynamos. Text-book: Sever's *Laboratory Notes*. Mr. SEVER

Required of all third-year students in Electrical and Mechanical Engineering. Prerequisite: Course 7.

Course 10 with Courses 1 and 4 count together as a minor for the degree of A.M.

11—Alternating-current laboratory—Practice in the use of instruments and in the operation and testing of generators, motors, and transformers, as follows:

1. Practice in alternating-current measurements with commercial instruments.
2. Introductory experiments on the general properties of alternating-current circuits.
3. Determination, by various methods, of the efficiency of transformers. Determination of the values of the different losses.
4. Determination and plotting of curves of potential, current, and power, etc., under different conditions.
5. Operation of alternating-current generators and motors. Determination of their characteristic curves and other data concerning them. Brake and efficiency tests.
6. Experiments with polyphase currents. Construction of vector diagrams from actual determinations. Determination and plotting of the several potential, current, and power curves, alternators in parallel.
7. Experiments on various methods of transformation from one polyphase system into another. Text-book: Townsend's *Laboratory Notes*. 3 afternoons, part of first and second half-years. Mr. SEVER, Mr. TOWNSEND, and Mr. AYLMER-SMALL

Required of all fourth-year students in Electrical Engineering. Pre-requisites: Courses 1, 4, and 10. Course 23 and Mechanics 8 and 9 required as parallel courses.

Course 11 with Courses 2, 22, and 23 count together as a minor for the degree of A.M. Pre-requisites: Courses 1, 4, and 10.

12—Electrical-instrument laboratory.

Calibration of commercial measuring instruments and advanced electrical measurements, including self-induction, capacity, and magnetic measurements, as follows:

1. Calibration of direct and alternating-current ammeters and volt meters by various methods.
2. Standardization of watt-hour meters.
3. Measurements of inductance and capacity. (*a*) Comparison of inductances. (*b*) Determination of a coefficient of self-induction. (*c*) Comparison of capacities. (*d*) Absolute determinations of capacity and self-induction.

4. Magnetic measurements. (*a*) Measurements relating to the magnetic leakage of a dynamo or motor. (*b*) Determination of the permeability of samples of iron and steel. (*c*) Measurement of hysteresis of samples of iron or steel by several methods.

5. Practice in the management of storage batteries. Determination of their efficiency, capacity, and characteristic curves.

6. Practice in testing arc and incandescent lamps.

3 afternoons, part of the first half-year. Mr. TOWNSEND and Mr. AYLMER-SMALL

Required of all fourth-year students in Electrical Engineering. Pre-requisite: Course 10.

15—Direct-current dynamo and motor design.

Original design in detail with calculations and working drawings of a specially assigned dynamo or motor. 2 hours conference and 1 afternoon in drawing-room, second half-year.

Required of all third-year students in Electrical Engineering. Pre-requisite: Course 1.

22—Management of electrical plants—Economy in the design, construction, and operation of electrical stations, plants, and factories. Organization, administration, accounts, specifications, contracts, laws and insurance rules, accidents, patents, and statistics in relation to electrical work. 2 hours, second half-year. Professor CROCKER

Required of all fourth-year students in Electrical and Mechanical Engineering. Pre-requisites: Courses 2 and 23. Course 22 with courses 2, 11, 21, and 23 count together as a minor for the degree of A.M. Pre-requisites: Physics 3 and Courses 1, 4, and 10.

23—Electrical distribution—Principles and methods of transmitting and distributing direct as well as alternating currents; series, parallel, and multiple wire systems; regulation of voltage and current; transformers; meters; arc and incandescent lamps. Text-book: Crocker's *Electric Lighting*, vol. ii. 2 hours, first half-year. Professor CROCKER

Required of all fourth-year students in Electrical and Mechanical Engineering. Pre-requisite: Course 4. Course 23 with Courses 2, 11, and 22 count together as a minor for the degree of A.M. Pre-requisites: Course 1, 4, and 10.

Graduates of colleges or technical schools are admitted without examination as candidates for the degree of Electrical Engineer, provided their preparatory course of study has been sufficient.

It is possible for a graduate of a high-grade mechanical or other engineering course to obtain the degree of Electrical Engineer in one year. In such a case the student must have already passed the general and mechanical subjects of the entire course. These cover practically all the work of the first and second years of the Electrical Engineering course and nearly half of the third- and fourth-year subjects. The student may, therefore, be excused from these studies and can devote himself to the electrical subjects of the third and fourth years, which as far as possible are arranged to avoid conflicts.

Equipment

The offices, laboratories, lecture and other rooms of the Electrical Engineering department are in the south end of Engineering. In the sub-basement are located the storage-battery and photometer rooms. The former will contain a battery of 70 cells, to be used for efficiency and output tests and also as a source of steady potential and current. The photometer room is equipped with all necessary apparatus for determining the candle-power of arc and incandescent lamps as well as other sources of light. In the basement are situated the two machine laboratories, the larger containing the direct-current machinery, while the smaller accommodates the alternating-current apparatus. In the former, a 50 H.P., high-speed steam-engine drives a line shaft carrying pulleys controlled by friction clutches, to which the larger machines are belted. The arrangement of the engine and shaft is such that two dynamos of 30 kilo-watts each can be connected to the engine, or one dynamo connected to the engine, while the other is used as a motor to drive the line shaft, the current being obtained from the electric light and power plant of the University. In this way the breaking down of the motive power is rendered almost impossible and an excellent demonstration of the two methods of driving is made. The smaller machines are belted to a second line shaft, being mounted upon two long, heavy tables, which brings them to a convenient height and also affords space for instruments, note-books, and the like.

The various dynamos which are belted to the two shafts include examples of 115- and 500-volt constant potential generators, constant current arc-lighting dynamos, and other typical machines. Several types of stationary and railway motors, as well as motor-dynamos are also placed in this room. Machine and hand tools are provided in one corner of this laboratory for making and repairing apparatus, attachments, and the like. Complete sets of ampere and volt meters, speed indicators, and transmission and absorption dynamometers, are available for testing the various dynamos and motors. In the Mechanical Engineering Laboratory is placed an electric car of full size, completely equipped with motors and controlling apparatus. This is available for purposes of testing.

In the other machinery laboratory, the alternating-current apparatus is placed, including single-phase and polyphase generators, induction and synchronous motors, rotary converters, and various types and sizes of transformers. Each alternator is driven by a separate electric motor, enabling its speed to be independently regulated. Complete sets of alternating-current-measuring instruments and curve-tracing apparatus are also provided.

On the first floor are situated the smaller lecture-room (seating 70), ordinarily used for class-work, and the larger lecture-room (seating 150) for combined classes. In Havemeyer, immediately adjoining, a still larger lecture-room (seating 350) is available for meetings and public lectures. All of these rooms are provided with an ample supply of electrical energy of different forms, as well as gas, water, and other facilities to enable experimental demonstrations to be conveniently and effectively performed. For example, dynamos, motors, and other apparatus of practical size are shown in actual operation to illustrate the lectures, this being made a special feature of the instruction.

The museum contains cases for the collection of apparatus, models, and materials relating to Electrical Engineering. This museum adjoins the lecture-rooms so that its contents can be conveniently used for illustrating the lectures.

On the third floor are located the large instrumental laboratory, the research room, and the studies of the officers. The laboratory contains a number of tables on which the instruments and apparatus are permanently set up ready for use. These include various forms of galvanometers, ampere balances, standard cells and resistances; apparatus for measuring inductance, magnetic permeability, hysteresis, and leakage; laboratory standard volt and ampere meters. The research room is used for special post-graduate and thesis work, and is fitted up according to the lines of investigation that are being followed.

A most important facility is the large and reliable supply of electric power which is afforded by the central power plant of the University. This consists of boilers having an aggregate capacity of 2000 H. P., two low-speed engines directly connected with two dynamos of 275 H. P. each, and two high-speed engines directly connected to two dynamos of 100 H. P. each. This electrical generating plant, having a total capacity of 750 H. P., and illustrating the latest and best practice in Electrical Engineering, furnishes current for electric lighting and for driving the motors and fans used in ventilating all of the buildings. Special conductors are also laid to convey to all the laboratories and lecture-rooms of the Electrical Engineering department an ample supply of current for experimental work. The power plant, on account of its magnitude and completeness, gives the students excellent opportunities to study the general economy of generating mechanical and electrical energy, as well as the individual operation of the various parts under practical conditions.

There is also available for the use of the Electrical Engineering students, the Electrical Laboratory situated in the basement of Engineering, the work being carried on under the department of Mechanics.

Mechanical Engineering

Frederick R. Hutton, E.M., Ph.D	*Professor*
William Ledyard Cathcart	*Adjunct Professor*
Ralph E. Mayer, C.E	*Instructor*
Ira H. Woolson, E.M	*Instructor*
Frank E. Pendleton, Mech.E	*Assistant*
Samuel O. Miller, C.E	*Assistant*
Edward L. Coster	*Assistant*

Charles Russrll Richards, B.S	*Professor of Manual Training in Teachers College*
Charles P. Benns, M.E	*Instructor in Teachers College*
Charles C. Sleffel	*Instructor in Teachers College*
Charles W. Weick, B.S	*Instructor in Teachers College*

Special students are admitted to the courses for which previous training may have fitted them. All courses intended for undergraduates in the Schools of Applied Science may be pursued by graduates of those or other schools of like grade and standing as graduates' courses, the instruction for such persons being carried farther in specialization than the time available permits to candidates for undergraduate degrees. The instruction for such advanced students will be by prescribed reading, by problems assigned, and by work in the mechanical laboratories under individual instruction. These supplementary courses will vary in difficulty with the amount of time necessary according to the needs of the individual and the subject. Courses 10, 11, 12, and 13 are pre-requisites for all graduate courses. Experimental investigation is a special feature of such work in Courses 10 to 17, 19, 24, and 25.

Courses

1—Elementary mechanical drawing—Use of instruments, elementary projections, descriptive geometry, graphics, and stereotomy. 2 hours lectures and 5 hours drawing-room, first year; 2 hours lectures and 5 hours drawing-room, second year. Messrs. MAYER and MILLER

2—Specialized engineering drawing—Topographical and geological charts and maps; working and isometric drawing of machinery, furnaces, and structural work. Tracing and blue printing and shop drawings. 2 hours lectures, 5 hours drawing-room, second year. Messrs. MAYER and MILLER

3 and 4—First-year shop-work—Carpentry, framing, and joinery, first half-year; wood-turning, pattern-making, moulding, and foundry-work, second half-year. 1 hour conference for instruction, and the equivalent of two afternoons shop-practice in the shops of Teachers College. Mr. WEICK

5—First-summer shop-work—Pattern-making and foundry-work — 100 hours in 3 weeks in June. Mr. WEICK

6—Second-year shop-work—Forging, management of fire, shaping, drawing, upsetting, swaging, welding, tempering, and die-forging. 1 hour conference, and four laboratory periods first half-year, and two periods for second half-year. Mr. SLEFFEL

7—Second-year shop-work — Bench-work, chipping, filing, tapping, and threading, pipe-threading, scraping, and fitting. Machine-tool work at lathe, planer, drill, shaper, milling machine, grinder, and turret-lathe. Assembling, erection, and rigger's work. 1 hour a week conference for instruction, and two laboratory periods, second half-year. Mr. BENNS

8—Second-summer shop-work—Machine-tool work continued. 100 hours in 3 weeks in June. Mr. BENNS

9—Third-year shop-work—Machine-tool work, with special appliances for rapid and economical production. 1 afternoon per week. Mr. BENNS

10—Properties of materials and alloys—Fabrication and mechanical treatment of iron, steel, and alloys; ingot metals, steel castings, their composition, and their properties; rustless coatings, engineers' inspections, properties of alloys. General characteristics of timber for engineering uses; inspection of lumber and timber; preservative processes; methods of testing materials. 2 hours, second half of second year, and first half of third year. Mr. WOOLSON

11—Engineering of power plants—Steam-engines and their mechanisms, rotary engines, the single-acting engine, the mechanical features and construction of the condensing, compound, and multiple-expansion engines. 1 hour lecture with recitation, second half-year. Professor HUTTON

12—The steam-engine and its accessories—The power plant continued. Engine valve-gear, details of construction, erection, and setting, piping, accessories, and repairs. 2 hours lectures and recitations, first half-year. Professor HUTTON

13—The steam boiler and its accessories—The power plant concluded. Typical forms, construction, accessories, wear and tear, repairs, tests, inspection, operation, and control. 2 hours lectures with recitations, second half-year. Professor HUTTON

14—Management and test of boilers—Laboratory and power-house practice, arranged at convenience, by squads of students.

Course 14, taken with 19, 20, 21, 23, and 28, forms a major for the degree of A.M.

15—Operation and tests of engines—Laboratory and power-house practice, arranged at convenience of instructors and students.

16—Testing materials of engineering—Clinical conferences and work in the laboratory with testing machines upon tensile, transverse, compressive, torsional, and other resistances of structural and other materials. Afternoon hours, alternating with mechanical and electrical laboratories and drawing-rooms. Messrs. WOOLSON and PENDLETON

Courses 16, 22, and 28 may be taken together as a minor for the degree of A.M.

17—Mechanical engineering laboratory—Calibration of indicators, tests of gauges, standardization of dynamometers, tests of efficiency of mechanisms, and losses in transmission of power. Afternoon hours, alternating with testing and electrical laboratories and drawing-room. Messrs. WOOLSON and PENDLETON

Course 17 may be combined with 23, 24, and 28, or with 18, 24, and 28, and these, when taken together, constitute a minor for the degree of A.M. Course 17, combined with 21, 22, 25, 27, and 28, will constitute a major for the degree of A.M.

18—Machinery and mechanism — Motion, velocity, transmissive principles, conversion of motion, teeth of wheels, general mechanism. 2 hours lectures and recitations. Mr. WOOLSON

Courses 17, 18, 24, and 28, taken together, form a minor for the degree of A.M. Courses 17, 18, 19, 20, 21, 24, and 25 form a major for the same degree.

19—Heat and its applications—Fuels for motive power, combustion, transfer of heat, heating surface, generation of steam, chimneys, artificial draft, smoke, prevention, use of steam in engines, super-heating ; gas- and air-engines, combined vapor engines, ammonia and other vapor engines, air-compressors, refrigerating machinery. 3 hours lectures and recitations first half of fourth year. Professor HUTTON

Course 19, taken with 24 and 28, forms a minor for the degree of A.M. Course 19, taken with 14, 20, 21, 23, and 28, forms a major for that degree.

20—Motors other than steam—Animal, water, wind, and wave motors ; turbines. 1 hour lecture, second half-year. Professor HUTTON

21—Dynamics of motors—Work of motors, dynamometers, governors, regulators, inertia, friction, and efficiency. 1 hour lecture, second half-year. Professor HUTTON

Courses 20 and 21, taken together with 23, 25, 27, and 28, count as a minor for the degree of A.M. ; with 14, 19, 23, and 28, they form a major for the same degree, and can also be combined with 25, 27, and 28, and with 24 and 28.

22—Engineering design and drawing — Graphic statics of structures and mechanism, proportion of parts of machines, shop and working drawings. 1 hour, and afternoon work in drawing-room. Professor CATHCART

See also under 16 and 17.

23—Valve-gearing for engines — Common valve-gear, polar diagram design, link-motions, cam gears; variable cut-off mechanisms. 1 hour per week first half-year, and afternoon work in drawing-room. Professor CATHCART

See also under 14, 17, and 20.

24—Heat and steam-engineering laboratory—Tests upon the experimental steam-engine and air-compressor and air-engines; indicator and dynamometer work; determinations of heat units and water consumption, from theory and experiment. Afternoon hours, alternating with hydraulic and electrical laboratories and thesis work. Professor CATHCART and Assistants

See also under 17, 19, 21, and 26.

25—Hydraulic engineering and motors laboratory—Verification of hydraulic formulæ for friction and efflux; tests of motors and hydraulic machines. Afternoon hours alternating with mechanical and electrical laboratories and thesis work. Professor CATHCART and Assistants

See also under 17, 20, and 21.

26—Railway motive power and machinery—Types of locomotive engine, boiler, mechanism, running gear, compound locomotives, design and performance in hauling loads; accessory features to the motive power; railway machinery. 3 hours lectures, first part of first half-year. Mr. WOOLSON

Courses 24, 26, and 28 taken together form a minor for the degree of A.M.

27 — Pumps, pumping, and special engines — Construction mechanisms, designs, types, valves, erection, management, efficiency, duty; special forms of steam-engine for special duty. Special course of lectures, second part of second half-year. Professor HUTTON

See also under 17 and 21.

28—Steam-engine design and advanced drawing. 2 hours, fourth year, with afternoon work in drawing-room. Professor CATHCART

29—Shop and factory organization and management. 1 hour a week, fourth year. Professor HUTTON

30—Work shop economics and specifications—Cost of manufacture, shop accounts, wage systems; specifications for economical manufacture. 1 hour lecture, and 1 afternoon in shop a week, third year. Professor HUTTON and Mr. BENNS

31—Marine engine design—Theory and practice of design of structural and working parts: Cylinder-diameters for stage expansion; inertia of moving parts; crank-effort; balancing and force-curves; vibration and speed of rotation; the slip, thrust, and efficiency of propelling instruments.

Engine details: Cylinder proportions; marine valve-gears; condensers; shafting; bearings—line, thrust, stern, and strut; screw-propellers—diameter, pitch, and blade surface.

Marine boiler design—Cylindrical and water-tube: Comparison of various types; grate area and heating surface under natural and forced draft; volumes of furnace, combustion chamber, steam and water-spaces; areas of tubes, uptake, and smoke-pipe; joints, braces, and stays.

2 hours for Alternative D; 1 hour for Alternative E. Professor CATHCART and Assistants

32—Naval architecture—Methods of calculating areas and volumes as applied to ship forms; displacement in salt and fresh water; moments of areas and volumes; centre of buoyancy, horizontal and vertical; displacement-sheet; transverse and longitudinal metacentres; trim, and moment to alter trim; statical stability; curves of stability; dynamical stability; stability in damaged condition; rolling in still water and in waves; weights and centre of gravity of hull and equipment; riveted joints; strains on a ship; strength calculations; propulsion; horse-power; resistance; speed; launching calculations; steering; diameter of rudder head.

Calculations for a given ship, as follows: Curves of displacement in salt and fresh water; areas of midship section and water-planes: tons per inch immersion; vertical and longitudinal positions of centre of buoyancy; heights of transverse and longitudinal metacentre; added displacement for trim; wetted surface; stability curves; weights and c. g. of hull and equipment; curves of loads, buoyancy, shearing stresses, and bending moments; equivalent girder and strength of hull; power and resistance; diameter of rudder head.

2 hours for Alternative D; 4 hours for Alternative E. Professor CATHCART and Assistants

33—Ship-building—Materials; types of vessels; lines and models; laying down and fairing lines in mould-loft; bending and erection of frames; double bottoms; plating; order and details of construction in merchant and naval work; ordering material; preparation of building slip; launching; fitting machinery; equipment; docking; mast and rigging details.

Draughting of general arrangement, lines, midship section to rules of insurance societies; of shell expansion; longitudinal section; deck steel plans; joiner plans; stem and stern-post; keel plan; bulkheads, etc.

The problem of design: The ship from naval and commercial points of view. Initial cost and economy of operation, with regard to speed and carrying capacity.

1 hour for Alternative D; 2 hours for Alternative E. Professor CATHCART and Assistants

34—Marine auxiliaries, appliances, and materials—Feed, fire, and bilge-pumps; feed-tanks and heaters; evaporators and distillers; bilge and ash-ejectors; sea-cocks and valves; blowers; steam capstans and steering gear; balanced rudders; ordnance machinery; automobile and dirigible torpedoes; machinery for lighting, heating, ventilation, and refrigeration; compasses and their adjustment.

Materials of construction for machinery and hulls. Corrosion and sheathing of hulls. Care of machinery in port and management under weigh. 2 hours. Professor CATHCART

35—Vacation class in mechanical engineering—During the latter half of the school year visits are made to shops, factories, iron and steel works, and pumping stations, for the study of practice in these lines. The time occupied is variable according to circumstances. The instruction is conducted by Professor HUTTON, Professor CATHCART, and Assistants

36—Summer work between first and second years—Memoir or drawings.

37—Summer work between second and third years—Memoir or drawings.

38—Summer work between third and fourth years—Memoir, test, report, or special laboratory work as may be directed in each case by the Professor of Mechanical Engineering.

39—Graduation thesis.

40—Special problems and original investigations in advanced mechanical engineering with conferences, laboratory work, and design as required. Major subject for degree of Ph.D. Pre-requisites: all courses offered in the department of Mechanical Engineering.

41—Machine design—Resistance of materials to tension, compression, shearing, buckling, flexure, and torsion; relation of stresses and strains; elastic limits, resilience; coefficients of resistance, fibre, strain, and modulus of electricity; working stresses, factors of safety; fatigue of metals; analytical treatment of beams, columns, girders, and trusses. Designs of machines and structures; riveted and bolted work and fastenings; journals and bearings, axles and shafting; linkages, chains, cables, hooks, and fastenings; machine parts, cranks, connecting-rods, pressure organs, valves, fly-wheels, pulleys, etc. Specifications for machines. 3 hours a week lectures and recitations during the third year, and 2 afternoons per week in problems and design in the drawing-room, with drill in the use of the slide-rule in calculations. Reference and text-books: Reuleau's *Constructor* (Suplee's translation), and Merriman's *Mechanics of Materials*. Professor CATHCART

42—Propelling machinery — Economics of the marine engine: Multiple expansion: steam jacketing; re-heating. Power required for propulsion: the resistance of ships; relations of speeds and powers; displacement and midship section formulæ; coefficients of fineness; method by wetted surface; determination by model experiments; speed and power curves; I. H. P. for given type, displacement, and speed; effect of wind and wave on propulsive efficiency; high-speed craft; submarine propulsion. 2 hours. Professor CATHCART

43 — Locomotive engineering and design — (1) The locomotive problems: train resistances, line resistances, traffic obligations, time obligations, limitations of weight, length, height, and speed. Shocks and stresses caused by road-bed and alignment, by inertia, by friction, and by effort of engine. Necessity for standards and interchangeability, for accessibility of parts to inspection, cleaning, and repair; for durability, simplicity, convenience; for safety. Cost of operation, fixed charges and running costs; repairs, economy of fuel. Adaptation of motive power to alignment; helper engines or pushers. Adhesion and tractive power. (2) The locomotive as an appliance for generating power:

design of the fire-box, grate tubes, combustion chamber, smoke box, barrel and stack. Grate surface and heating surface for a given power, rate of combustion, forced draft, dampers, blower; boiler proportions, joints, stays, and structural details. Design of fire-box for various fuels and powers. Boiler accessories. (3) The locomotive as a steam-engine; design of cylinders, pistons, engine mechanism, valve-gear, crank pins, lubrication, and accessory details. Exhaust nozzles; throttle valve, steam pipe. Discussion of piston-speeds, lead, compression, wire-drawing, condensation, clearance, leakages, and steam economy. The compound locomotive. (4) The locomotive as a carriage: the driving wheels, the frames, the springs, the equalizing system. The effect of rails, joints, and switches on the running gear; the trucks and wheels for engines and cars. Axles, boxes; counterbalancing, oscillations, hammer-blow. Engine and train power-brakes. (5) Critical study of types of locomotive. The number of drivers, the load per wheel, the speed and tractive power. Comparison of American and foreign designs. 3 hours, first half-year. Professor HUTTON

44—Locomotive accessories—(1) The tender and tank, capacities and structure; effect as limitations on power or haul; draw-bars and couplers; sanders; signal-systems, bells, whistle, head-light, etc. (2) Railway round-houses and repair shops. (3) Water and coaling stations. Turn-tables. (4) Mechanically operated switch and signal stations. (5) The testing department of the railway.

45—Locomotive specifications, manufacture, and accidents—(1) Detail study of designs of accepted practice. (2) Locomotive building. (3) Cost of production. (4) Accidents and breakages.

46—Locomotive testing and management—(1) Consumption of coal per H.P.; per square foot of grate; per ton-mile. (2) Consumption of water per H.P.; per ton-mile. (3) Tractive effect at various speeds. (4) Combustion problems in the locomotive. (5) Road tests and operation of engines.

47—Locomotive history and evolution—(1) Historic types. (2) Steam *vs.* electric traction on trunk and branch lines. (1) Lines of development of locomotive.

48—Traction engines and automobile carriages. Rolling stock—(1) Self-propelling road engines. (2) Street railway engines. (3) Cars. (4) Automobiles.

44 to 48 form one course of 3 hours per week. Professor HUTTON

49—Mould-loft practice—Afternoon work. Professor CATHCART and Assistants

103, 104—First-year shop-work—Short course in wood-carving for Electrical and Civil Engineers. 1 afternoon per week. Mr. WEICK

106, 107—Second-year shop-work—Short course in forging and machine-shop for Civil and Electrical Engineers. 1 hour lecture first half-year, 1 afternoon per week in both half-years. Mr. SLEFFEL and Mr. BENNS

Equipment

The department of Mechanical Engineering both has its own special equipment, and also enjoys the admirable and complete equipment of other departments for the use of its students.

THE WORKSHOPS are located in the Macy Manual Arts building of Teachers College, 120th Street, and may be generally divided into two groups, each having a capacity for twenty workers at one time. The wood-working course is planned to lead up to pattern-making and foundry-work. The equipment includes usual benches for joinery and pattern-making with the necessary hand-tools, and for wood-turning a fine outfit of speed-lathes with their appurtenances. The foundry division has facilities for bench and floor moulding, and for limited work with sweeps. A carpenter shop with ordinary saw-benches, planers, and tools for profile-sawing is available for working up stock and special appliances.

The second division includes the shops for metal-working. For blacksmith work and forging are twenty Buffalo forges with anvils, tools, and vises. Blast is furnished by pressure blowers, and the hot gases and smoke are drawn out through exhaust hoods by a fan. A 30-pound Bradley power-hammer and a 400-pound Billings and Spencer drop-press are used to illustrate and enforce the application of the forge processes to manufacturing.

For metal-working by hand a special shop is equipped with vises for chipping, filing, scraping, and general bench-work. For machine-tool work a handsome and well-equipped shop contains engine-lathes, swinging from twelve to twenty inches, planers, shapers, drill-presses, universal milling machine, universal grinding machines, and the subsidiary appliances of the machine shop. A Jones and Lamson flat turret-lathe is used to familiarize the student with modern methods of rapid and economical production, and he is expected to learn its use in manufacturing processes. The tool-room is administered according to advanced standards in these matters, and a regular shop organization and atmosphere is aimed at. The department has also an amateur's lathe, the gift of friends to the University, with unusual attachments in the way of chucks, dividing head, and the like.

THE MECHANICAL LABORATORIES, properly so called, are located partly in the great basement annex area north of Engineering and beneath the esplanade in front of Havemeyer, partly in Engineering, and partly in the great Power House. Their area exceeds 9000 square feet, giving a length in one span of over 210 feet and a width of 32 and 35 feet. The five subdivisions are, respectively, the Locomotive Laboratory, the Steam and Motive-Power Engineering Laboratories, the Air- and Gas-Engine Laboratory, the Hydraulic Motors Laboratory, and the Testing Laboratories.

THE LOCOMOTIVE LABORATORY, OR LABORATORY OF TRANSPORTATION ENGINEERING, forms a unique and impressive department of the mechanical laboratories, by reason of the presence of the full-size passenger express locomotive engine "Columbia," presented to the department by the Baldwin Locomotive Works of Philadelphia. It is a standard-gauge engine of the Vauclain compound type, having four cylinders, and a power represented by

1600 H.P. Its weight is sixty-three tons, of which eighty thousand pounds rests upon the four drivers and is available for adhesion and traction.

THE STEAM AND MOTIVE-POWER ENGINEERING LABORATORY occupies an area of 84 x 85 feet in the centre of the great laboratory space, and has been made a memorial to the late Edward P. Allis by the gift of the principal features of its equipment by his sons, the Messrs. Allis of Milwaukee. It contains a triple-expansion Reynolds Allis-Corliss steam-engine of 150 H.P., fitted with complete apparatus for condensing and weighing the steam used in tests. The machinery of transmission in this section, which carries power from the Allis engine or the McIntosh-Seymour engine, is a model plant presented to the laboratories as a memorial of the late Wallace H. Dodge by the Dodge Manufacturing Co., of Mishawaka, Ind.

THE SECTION OF DIRECT-COMBUSTION ENGINES, illustrating motors using other media than steam as heat-carrier, embraces two Otto gas-engines, one of 10 H.P., purchased by the department, and one of 15 H.P., the gift of Mr. S. D. Coykendall of Rondout; a 10 H.P. Nash engine, a Hornsby-Akroyd oil-engine, and an Ericsson and a Rider caloric pumping engine. This important section will be strengthened as opportunity may offer.

THE HYDRAULIC MOTORS LABORATORY, occupying a space of 67 feet long and 32 feet wide, is at the east end of the laboratory, and has been made a memorial gift by Mr. Charles C. Worthington, and is known as the Henry R. Worthington Laboratory. It has great tanks below the floor level of 4000 and 7000 gallons capacity, which supply the pumping machinery, and into which the motors discharge.

THE TESTING LABORATORIES, located at the north end of the main floor of the Engineering building, are equipped with high-grade testing machines for tensile, transverse, torsion, and compression tests. Their designs are of diverse types to give wide experience in handling, and they are fitted with the best and newest appliances for observing and recording deformations of test-pieces. The Emery Testing Machine of 150,000 pounds capacity is a marvel of accuracy and sensitiveness, and is used as a standard of reference.

For description in detail of the equipment of these laboratories, reference may be made to the "Announcement of the Courses in Mechanical Engineering," which may be had upon application to the Secretary of the University.

THE POWER PLANTS of the University at the Morningside site, and at the College of Physicians and Surgeons, at 59th Street and Tenth Avenue, offer unusual facilities for tests and investigations on a considerable scale, and add the strength of this administrative equipment to the distinctly laboratory equipment listed above. Students of Mechanical Engineering are permitted to have access to all this additional machinery.

THE DRAUGHTING-ROOMS on the top floor of Engineering are splendidly lighted and of very large extent, and are fitted not only with the best forms of drawing tables and furniture, but also with extensive collections of patterns, models, and illustrative drawings, blue prints, photographs, and prints, which are useful both as copies and for training in design. Sectional models of actual machines and structural material are abundant, and for the study of projection, stone-cutting, and warped surfaces, an unexcelled collection is at the service of students. A set of the Ollivier models, in which the elements of surfaces are represented by tense-threads, is a notable feature of these collections. In connection with the draughting-rooms is a room for blue printing and other solar work, and a photographic dark room.

THE CABINETS OR MUSEUM COLLECTIONS OF MECHANICAL ENGINEERING are located on the first or main floor of Engineering at the right of the entrance. They are subdivided into three groups or alcoves. In the first are exhibited models, specimens, and samples of the appliances and material referred to in the lectures on steam and motive-power engineering; the second exhibits mechanisms, gearing, and appliances for the transmission of power and conversion of motion; while the third is specially rich in specimens illustrating the properties of engineering materials, and particularly their behavior under strain, their methods of fracture, and the effects of corrosion, abrasion, impact, and the like. Some of these exhibits are unique. Much of similar illustrative material will be found also in drawing-room, classrooms, and in the testing laboratory itself.

LECTURE- AND CLASS-ROOM ILLUSTRATION is effected by extensive use of material from the collections, and of photographs exhibited as lantern-slides by projection in an illuminated room, by drawings and blue prints, and by electrotype prints and wall diagrams. Great service is made also of typewritten monographs and notes manifolded and distributed to the student.

Summer and Vacation Work

To derive the advantages possible from continuous work in the shop, two summer classes are maintained, each covering about one hundred working hours, beginning June 1. If necessary another similar term will be arranged for September. These form parts of the regular shop-work course of Mechanical Engineering, but are also intended to permit students from other schools, where these facilities are lacking, to comply with the requirements of the regular course by extra application and overtime work.

During the session, and on occasional holidays, students are given opportunities to visit engineering works, machine shops, factories, and industrial establishments in the city and its environs. More elaborate excursions are arranged for the late years to special places or districts, under the supervision of the professors or instructors. The summer between third and fourth years is intended to be specially used for work in connection with the final thesis, or in tests, or in actual running of machinery.

English

THOMAS RANDOLPH PRICE, M.A., LL.D.	*Professor*
BRANDER MATTHEWS, LL.B., D.C.L.	*Professor*
GEORGE RICE CARPENTER, A.B.	*Professor*
WILLIAM PETERFIELD TRENT, M.A., LL.D.	*Professor*
WILLIAM TENNEY BREWSTER, A.M.	*Instructor*
GEORGE C. D. ODELL, Ph.D.	*Instructor*
PHILIP GREENLEAF CARLETON, A.B.	*Tutor*
WELLINGTON PUTNAM	*Lecturer on Elocution*
GEORGE PHILIP KRAPP, Ph.D.	*Lecturer*
† JEANNETTE BLISS GILLESPY, A.B.	*Assistant*
† VIRGINIA C. GILDERSLEEVE, A.M.	*Assistant*

† On Barnard College Foundation.

Courses **A**, **B**, **1**, **2**, **15**, **17**, **19**, **21** are given both at Columbia College and at Barnard College.

Courses **4**, **6**, **8**, **16**, **22** are given only at Columbia College.

Course **23** is given only at Barnard College.

Courses 7, 16, 17 are open to seniors in Columbia College as well as to graduate students. Courses 46 and 48 are open, for 1900–1901, to specially qualified seniors in Columbia and Barnard Colleges.

Courses 7, 16, 17, 31, 34, 41, 43, 46, 48 are open to graduate students (but Courses 41 and 43 are not open to women).

Courses 7, 16, 17, 31, 34, 41, 43, 46, 48 are open to auditors (but Courses 41 and 43 are not open to women).

Courses

A—Rhetoric and English composition—Carpenter's *Exercises in Rhetoric and English Composition*. Recitations, weekly themes; in the second half-year lectures on certain English and American authors as models of style. 3 hours. Dr. ODELL, Mr. BREWSTER, Mr. CARLETON (Columbia College); Dr. ODELL, Miss GILLESPY, and Miss GILDERSLEEVE (Barnard College)

Prescribed for freshmen.

B—English composition—Fletcher's *Introduction to Theme-Writing*. Fortnightly essays, lectures, and consultations. 2 hours. Mr. BREWSTER, Dr. ODELL, and Mr. CARLETON (Columbia); Mr. BREWSTER, Miss GILLESPY, and Miss GILDERSLEEVE (Barnard)

Prescribed for sophomores. Pre-requisite: Course A.

1—English composition—Daily themes and fortnightly essays, lectures, and consultations. 3 hours, first half-year. Professor G. R. CARPENTER (Columbia); Mr. BREWSTER (Barnard)

Pre-requisite: Course B.

2—English composition—Lectures and discussions with regard to style; essays and other written work. 3 hours, second half-year. Professor G. R. CARPENTER (Columbia); Mr. BREWSTER (Barnard)

Pre-requisite: Course 1.

3—English composition (advanced course)—Essays, lectures, and consultations. Dr. ODELL

Not given in 1900–01.

4—Elocution—Lectures and exercises. 2 hours. Mr. PUTNAM

Open to sophomores, juniors, and seniors.

5—The art of English versification. Professor BRANDER MATTHEWS

Not given in 1900–01.

6—Argumentative composition—Lectures, briefs, essays, and oral discussions. 3 hours. Mr. CARLETON and Mr. PUTNAM

Pre-requisite: Course B.

7—Theory of English usage. 2 hours. Professor G. R. CARPENTER

8—English composition. 3 hours. Mr. BREWSTER

Open to freshmen who have passed the entrance examination in English, and, in addition, have passed an examination on Hill's *Foundations of Rhetoric*, Carpenter's *Exercises in Rhetoric and English Composition*, or an equivalent text-book. This course is equivalent to Courses A and B. Students passing in it are excused from Courses A and B.

15—Anglo-Saxon and historical English grammar. 2 hours. Dr. KRAPP (Columbia); Professor TRENT (Barnard)

Pre-requisite: Course A.

16—Anglo-Saxon literature—Poetry and prose. 2 hours. Dr. KRAPP

Pre-requisite: Course 15.

17—Chaucer—Language, versification, and method of narrative poetry. 2 hours. Professor PRICE

Pre-requisite: Course 15.

18—Pope—Language, versification, and poetical method. Professor PRICE

Pre-requisite: Course B. Not given in 1900–01.

19—Shakspere—Language, versification, and method of dramatic poetry. 2 hours. Professor PRICE (Columbia); Professor TRENT (Barnard)

Pre-requisite: Course B.

20—The poetry, lyrical, narrative, and dramatic, of Tennyson, Browning, and Matthew Arnold. Professor PRICE

Pre-requisite: Course B. Not given in 1900–01.

21—American literature. 3 hours (Columbia); 2 hours (Barnard). Professor BRANDER MATTHEWS and Dr. KRAPP (Columbia); Professor G. R. CARPENTER (Barnard)

Pre-requisite: Course A.

22—The history of the English novel. 2 hours. Professor BRANDER MATTHEWS

Pre-requisite: Course B.

23—English poetry—General survey from the Elizabethan age to modern times. 2 hours. Professor TRENT

Pre-requisite: Course A.

30—English language and literature of the eleventh, twelfth, and thirteenth centuries (advanced course), with reading of selected authors, investigation of special questions, and writing of essays. 2 hours. Professor PRICE

Not given in 1900–01.

31—English language and literature of the fourteenth (exclusive of Chaucer) and fifteenth centuries, with reading of selected authors, investigation of special questions, and writing of essays. 2 hours. Professor PRICE

32—English language and literature of the sixteenth century, reading of selected authors, investigation of special questions, and writing of essays. 2 hours. Professor PRICE

Not given in 1900–01.

Courses 31, 32, and 30 are given successively in 1900–01, 1901–02, and 1902–03.

33—Anglo-Saxon prose and historical English syntax. Texts: Prose in Sweet, Bright, and Grein; with investigation of special questions, and writing of essays. 2 hours. Professor PRICE

Not given in 1900–01.

34—English verse-forms—Historical study. 2 hours. Professor PRICE

40—Epochs of the drama. 2 hours. Professor BRANDER MATTHEWS

Not given in 1900–01.

41—Dramatists of the nineteenth century. 2 hours. Professor BRANDER MATTHEWS

Courses 40 and 41 will be given in alternate years.

42—Molière and modern comedy. 2 hours. Professor BRANDER MATTHEWS

Not given in 1900–01.

43—English comedy: its history and its methods. 2 hours. Professor BRANDER MATTHEWS

Courses 42 and 43 will be given in alternate years.

44—The history of the drama—Special topics. Professor BRANDER MATTHEWS

Open to graduate students who have taken Course 40, 41, 42, or 43.

45—The evolution of the essay. Professor BRANDER MATTHEWS

Not given in 1900–01.

46—English literature from 1625–1660, with special reference to Milton. 2 hours. Professor TRENT

47—English literature from 1660–1745, with special reference to Dryden and Pope. 2 hours. Professor TRENT

Not given in 1900–01.

48—English literature in the second half of the eighteenth century. 2 hours. Professor TRENT

49—English literature in the first half of the nineteenth century. 2 hours. Professor TRENT

Not given in 1900–01.

French

(See Romance Languages and Literatures)

Genito-Urinary and Venereal Diseases

ROBERT W. TAYLOR, M.D.	*Clinical Professor*
JAMES R. HAYDEN, M.D.	*Chief of Clinic*
WILLIAM C. GILLEY, M.D.	*Clinical Assistant*
EDMOND Y. HILL, M.D.	*Clinical Assistant*
JOHN B. STEIN, M.D.	*Clinical Assistant*
E. L. WILLIAMSON, M.D.	*Clinical Assistant*
W. B. BROUNER, M.D.	*Clinical Assistant*
W. D. TRENWITH, M.D.	*Clinical Assistant*
S. W. FOWLER, M.D.	*Clinical Assistant*
W. S. REYNOLDS, M.D.	*Clinical Assistant*

Courses

1—Venereal and genito-urinary diseases—Clinical lectures at the Vanderbilt Clinic. 2 P.M., Thursday. 1 hour. Professor TAYLOR

Required, in the third year, of candidates for the degree of M.D.

2—Practical instruction at the Vanderbilt Clinic in the diagnosis and treatment of venereal and genito-urinary diseases—12 lessons for each student. Dr. HAYDEN

Required, in the third year, of candidates for the degree of M.D.

3—Hospital clinics in venereal and genito-urinary diseases—Bellevue Hospital, Tu. at 3.30 P.M. throughout the academic year. Professor TAYLOR

The Bellevue Hospital clinics are optional in the third and fourth years for candidates for the degree of M.D.

Geology

JAMES FURMAN KEMP, A.B., E.M.	*Professor*
ALEXIS ANASTAY JULIEN, Ph.D	*Instructor in Geology and Curator*
ARTHUR HOLLICK, Ph.D	*Tutor*
GILBERT VAN INGEN	*Curator of the Geological Collections*

Courses

1—General geology—First half-year, physical geology, with practical work in the rock collections under the lithological part of the subject; second half-year, stratigraphical and historical geology, involving laboratory work with type fossils and collections illustrating the geology of the United States. Text-book: Le Conte's *Elements of Geology*. 2 hours lectures, including laboratory work. Dr. HOLLICK

Elective for juniors and seniors in the College.

2—General geology—A more elaborate discussion of the subjects treated in Course 1. Text-books: Scott's *Introduction to Geology* and Kemp's *Handbook of Rocks*. 3 hours lectures. Professor KEMP, Dr. JULIEN, and Mr. VAN INGEN

Required of all third-year students in the course of Civil Engineering; of second-year students in the School of Mines. Elective for seniors in the College who have not had Course 1.

3—Economic geology—First half-year, discussion of the general features and formation of ore bodies, followed by a description of the deposits of the ores of iron, copper, lead, zinc, silver, gold, and the lesser metals, with especial reference to North America; second half-year, a description of the distribution and occurrence of coal, petroleum, natural gas, asphalt, building-stone, water supply, salines, and minor minerals. Text-book: Kemp's *Ore Deposits of the United States and Canada*, and lecture notes privately printed. 3 hours lectures and conferences. Professor KEMP

Required of all third-year students in the School of Mines. Elective for seniors in the College who have had Course 1 or 2 or an equivalent. Open, with two additional hours weekly of collateral reading, to candidates for the degrees of A.M. and Ph.D whose minor subject is Geology.

4—Petrography—A short course in the microscopic study of rocks. Follows Mineralogy 6. 2 lectures and one afternoon, two months of the second half-year. Professor KEMP and Dr. JULIEN

Required of second-year students in the School of Mines.

5—Geology of building-stones—2 lectures, or the laboratory equivalent, during the first half-year. Dr. JULIEN

This may be followed by Course 11.

6—Petrology—A discussion of the origin, microscopic structure, and mineralogical composition of the crystalline rocks, and of metamorphism. 2 hours lectures, 4 hours or more laboratory. Professor KEMP

Pre-requisite: Optical Mineralogy.

Open to candidates for the degree of A.M. and Ph.D. whose major or minor subject is Geology.

7—Invertebrate palæontology—A general description of invertebrate fossils following the biological sequence. Text-books: Zittel-Eastman, *Elements of Palæontology*, and Nicholson's *Manual of Palæontology*. 2 hours lectures, 4 hours or more laboratory. Mr. VAN INGEN

Pre-requisite: Zoölogy 1. Open to candidates for the degrees of A.M. and Ph.D. whose major or minor subject is Geology.

8—Comparative geology—A comparative description and study of the geological formations of the globe, in their areal distributions and taxonomy. Text-books: *Correlation Bulletins of the U. S. Geological Survey*, Kayser's *Text-Book of Comparative Geology*, and the manuals of Geikie, Dana, and De Lapparent. 2 hours lectures and at least 4 hours reading and laboratory. Professor KEMP for the crystalline and pre-Cambrian rocks; Mr. VAN INGEN for the fossiliferous.

Open to candidates for the degrees of A.M. and Ph.D. whose major or minor subject is Geology.

9—Palæobotany—A study of fossil plants, following the biological sequence. Text-Books: Zittel's *Handbuch der Palæontologie*, vol. ii., and Solms-Laubach's *Palæophytology*. 1 hour lecture or conference, 4 hours laboratory or reading for two years. Dr. HOLLICK

Pre-requisite: Botany 1. Open to candidates for the degrees of A.M. and Ph.D. whose major or minor subject is Geology.

10—Geological examinations and surveys—A discussion of the methods of systematically recording and interpreting geological phenomena; and of the organization and scope of geological surveys on a larger scale. This will be followed by a sketch of the history and results of state and national geological surveys in this and other countries, and of other sources of detailed information regarding local geology. 1 hour. Professor KEMP, Mr. VAN INGEN

11—Metamorphism—A discussion of the processes and effects of metamorphism. 2 lectures, or the laboratory equivalent, during the second half-year. Dr. JULIEN

Journal Club and Seminar, conducted by the officers of the department weekly, as arranged by consultation.

12—As a thesis subject which will furnish a major course for the concluding year of study for the degree of Doctor of Philosophy, some suitable subject will be assigned.

NOTE.—Attention is also directed to the allied courses in the departments of Mechanics and Zoölogy, in the former on Geodynamics, in the latter on Vertebrate Palæontology.

Summer School

The Trustees of the University have made an appropriation for a summer school in Geology, which defrays the expenses of a small squad of advanced students for about one month each summer, with the Professor of Geology or some other officer of the department. During the college year, excursions are offered to points of geological interest near New York, on all Saturdays and holidays of the fall and spring. Few other localities afford so extensive and so accessible exposures as the vicinity of New York.

13—Field geology between the third and fourth years (*optional between the second and third years*)—The summer course in geology is held in connection with the summer course in practical mining, and at least one week is devoted to field-work. Professor KEMP, Dr. HOLLICK, or Mr. VAN INGEN

Equipment

The Geological Laboratories, Lecture-room, and Museum occupy rooms 101, 104, 301, 401, and 402 of Schermerhorn Hall, where they are classified as follows: Room 101 contains the collections and laboratory in invertebrate palæontology and stratigraphic geology. The chemical laboratory, the grinding-room, and the main dark room are partitioned off from it. In room 104 are the collections and laboratory of vertebrate palæontology and palæobotany. Room 301 contains the collections in economic and inorganic geology. Room 401 is the general laboratory, specially utilized for petrographical work. Room 402 is the lecture-room, and in 404 is the departmental library. The laboratory in 401 contains collections illustrative of the different kinds of rocks, which are adapted to conferences in the course of general geology. There is also a much larger series of rocks embracing nearly all the rarer species and structures, which are used for advanced work in microscopic petrography. Parallel series of thin sections are provided for these, as are microscopes and other necessary apparatus for study, instruction, and investigation. A machine for grinding thin sections of rock, a photographic laboratory, and a chemical laboratory are in Room 101.

There are study collections accessible to the students which illustrate the various geological formations and type fossils, and which are used in the lectures and conferences on stratigraphical and historical geology. A very complete series illustrating the ore deposits, associated geological formations, and useful minerals of North America is similarly employed in the lectures on economic geology. The library of the late Professor Newberry is deposited with the department, and affords a quite complete series of geological reports and books of reference. In all the courses a large and continually increasing series of lantern-slides is employed with an electric lantern.

The Museums of the department are located in the west wing of Schermerhorn Hall, on the two lower floors. The general policy which is pursued in their management is to make them less places of display than working rooms, with much the same functions as the departmental library. Alcoves for the officers of the department and for graduate students will be reserved when necessary, near to groups of ores, rocks, or fossils, which may be under investigation.

On the second floor of Schermerhorn Hall (or the ground floor as one enters from the south), and in the west wing, are located the collections illustrative of dynamical and structural geology, and of mineral resources or economic geology. In the former, models and rock specimens exhibit the materials of the earth's crust, and the disturbances, alterations, sculpturing, and the like, to which they are subjected. In the latter, the ores of the various metals, in typical specimens, are shown in glass cases, while in drawers below will be found collections illustrative of the local geology of the productive districts. The same method is pursued for the non-metallic minerals.

The collections are arranged in two series, stratigraphical and biological. The stratigraphical series includes the sets of fossils characteristic of the different geological systems and groups, together with specimens of the rock formations. The larger part of this series is made up of a collection intended to show the succession of the various faunas that have inhabited the North American province in past time. The biological series illustrates the phylogeny of the several classes and races of invertebrate animals from their earliest fossil representatives down to the modern living forms. The arrangement is biological, living species being inserted in their proper taxonomic relations.

At the north end of this museum tables are provided for the work in stratigraphic geology and palæontology.

The basement room, under the large lecture-room that projects on the north side of Schermerhorn Hall, is devoted to the collections of fossil plants and fossil fish, in which the University is especially rich. Working tables and places are provided for instructors and students engaged in these departments of investigation.

Special attention should be called to recent accessions of works on palæobotany. Nearly all the principal dissertations and monographs in this branch of palæontology are now in the library, which, taken in connection with the extensive series of museum specimens, offer opportunities for research in fossil botany second to none in the country.

By arrangement with the American Museum of Natural History, advanced students in the University receive special privileges at the former, whose wealth of geological and palæontological material is exceptional.

Germanic Languages and Literatures

WILLIAM HENRY CARPENTER, Ph.D.........*Professor of Germanic Philology*
CALVIN THOMAS, A.M.........*Gebhard Professor of the Germanic Languages and Literatures*
WILLIAM ADDISON HERVEY, A.M..............................*Instructor*
ELIJAH WILLIAM BAGSTER-COLLINS, A.M.....*Instructor in Teachers College*
† RUDOLF TOMBO, Sr., Ph.D...*Tutor*

† On Barnard College Foundation.

RUDOLF TOMBO, Jr., A.M.	*Tutor*
ARTHUR F. J. REMY, A.M.	*Tutor*
† WILHELM ALFRED BRAUN, A.B.	*Assistant*
EMIL A. C. KEPPLER, A.M.	*Assistant*

The department, as its name implies, offers instruction, not only in German, but in the kindred languages and literatures of the other members of the Germanic group. In German the aim of the instruction is primarily to enable students to use the modern language with facility in reading, writing, and, as far as possible, in speaking, and to acquaint them with the masterpieces of German literature. Opportunity is also given to acquire a reading knowledge of the languages of the other Germanic nations, and to study their literatures. Parallel courses are arranged in such a way that while both language and literature are combined in the earlier courses, either side may be subsequently emphasized at will. Courses are also given in the philology of the whole Germanic group. Work supplementary to the lectures is given in the Seminar.

The courses offered by the department are grouped under the following heads: German, Scandinavian, Dutch, Gothic, and Germanic Philology.

Course **A** is required of freshmen in the College who did not present German at entrance and do not elect Course **1**; Course **1** is equivalent to Course **A** plus a three-hour freshman elective; Course **2** is open to students who have presented elementary German at entrance; Courses **3, 4,** and **5** are equivalent courses, open to students who have taken Course **1, 2,** or the advanced entrance examination; Courses **6, 8,** and **9** are open to students who have taken Course **3, 4,** or an equivalent; Course **7** is open to students who have taken Course **6,** or an equivalent; Courses **10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20,** and **21** are open, with the permission of the instructor, to seniors; Courses **A, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20,** and **21** are open to all university students. The Seminar is open to advanced students only.

Courses **6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20,** and **21** are open to auditors.

Courses **A, 2, 3, 4, 6, 7,** and **8** are also given at Barnard College.

Course **19** is given as Education **17** at Teachers College.

Courses in German

A—Elementary course. Thomas, *Practical German Grammar;* Harris, *German Reader;* easy stories and plays. 3 hours. Mr. HERVEY and Mr. TOMBO

Prescribed for freshmen who did not present German at entrance.

1—Longer elementary course. 6 hours. Mr. TOMBO and Mr. KEPPLER

Equivalent to the prescribed German of the freshman year, and a three-hour freshman elective. First half-year identical with Course **A**; in second half-year more difficult prose, by such authors as Heine, Riehl, and Freytag.

Open to others than freshmen only by consent of the Dean and of the instructor in charge.

2—Grammar, reading, and composition. 3 hours. Mr. REMY and Mr. KEPPLER

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† On Barnard College Foundation.

The text-books and plan of work are in general the same as those of the second half-year of Course 1.

Open to students who have presented elementary German at entrance.

Students who have taken Course 1 or 2 will be prepared to join Course 3, 4, or 5 at the beginning of the second year, either of which will be accepted as an equivalent of the reading knowledge of German required of candidates for the degree of Doctor of Philosophy in the school of Philosophy.

3—Selected works of Goethe, Schiller, and Lessing. Texts, chiefly dramatic, and essays. 3 hours. Mr. HERVEY

4—Historical prose. One volume of Freytag's *Bilder aus der deutschen Vergangenheit*, and other works of a historical or biographical character. 3 hours. Mr. TOMBO

5—Scientific German. Brandt and Day, *German Scientific Reading*, and various scientific monographs. 3 hours. Mr. REMY

3, 4, and 5 are equivalent courses, open to students who have taken Course 1, 2, or its equivalent.

6—History of German literature from the earliest times to the 19th century. Lectures, themes, and readings from Müller's *German Classics*. 2 hours. Professor THOMAS

Open to students who have taken Course 3, 4, or its equivalent.

7—Goethe's Faust: First and second parts. Lectures and recitations. 2 hours. Professor THOMAS

Open to students who have taken Course 6, or its equivalent.

8—Practice in speaking and writing German. Talks, conferences, and themes, all in German, upon linguistic and literary topics. 2 hours. Mr. TOMBO

Open to students who have taken Course 3, 4, or its equivalent.

9—History of the German language. Lectures and texts. 2 hours. Professor W. H. CARPENTER

Open to students who have taken Course 3, 4, or its equivalent.

10a—Great German writers. Lessing (first half-year) and Goethe (second half-year). 2 hours. Professor THOMAS

Open, with the permission of the instructor, to seniors, and to all university students.

Courses 10a and 10b are given in alternate years.

10a will be omitted in 1900–01, its place being taken by 10b. It will be given in 1901–02.

10b—Great German writers. Schiller (first half-year). Heine (second half-year). 2 hours. Professor THOMAS

Open, with the permission of the instructor, to seniors, and to all university students.

11—Old High German. Lectures and texts. 2 hours. Professor W. H. CARPENTER

Open, with the permission of the instructor, to seniors, and to all university students.

Courses 11 and 21 are given in alternate years.

21—Middle High German. Lectures and texts. 2 hours. Professor W. H. CARPENTER

Open, with the permission of the instructor, to seniors, and to all university student

Middle High German will be omitted in 1900–01, its place being taken by Old High German. It will be given in 1901–02.

19—Teachers' course. Theory and practice of teaching German in secondary schools. Essays, discussions, reports of observation, and practice teaching. 1 hour conference and 2 or more hours of practical work. Mr. BAGSTER-COLLINS
Given as Education 17 at Teachers College.

Open, with the permission of the instructor, to seniors, and to all university students.

20—Geschichte der deutschen Litteratur im 19. Jahrhundert. Vorlesungen in deutscher Sprache. 2 hours. Professor THOMAS

Open, with the permission of the instructor, to seniors, and to all university students.

Courses in Scandinavian

12—Swedish. Elementary course in the language, with miscellaneous reading, and a general survey in lectures of the history of Swedish literature. 2 hours. Professor THOMAS

**Open, with the permission of the instructor, to seniors, and to all university students.
Swedish alternates with Danish and Dutch in a cycle of three years.**

13—Danish. Elementary course in the language, with miscellaneous reading, and a general survey in lectures of the history of Danish literature. 2 hours. Professor THOMAS

**Open, with the permission of the instructor, to seniors, and to all university students.
Danish will be omitted in 1900–01; it will be given in 1901–02.**

14—Icelandic. Elementary course. Kahle, *Altisländisches Elementarbuch.* 2 hours. Professor W. H. CARPENTER

Courses 14 and 15 are given in alternate years.

Elementary Icelandic will be omitted in 1900–01, its place being taken by the advanced course; it will be given in 1901–02.

Open, with the permission of the instructor, to seniors, and to all university students.

15—Icelandic. Advanced course. The Völsunga Saga. Lectures and texts. 2 hours. Professor W. H. CARPENTER

Open, with the permission of the instructor, to seniors, and to all university students.

Course in Dutch

16—Dutch. Elementary course in the language, with miscellaneous reading, and a general survey in lectures of the history of Dutch literature. 2 hours. Professor W. H. CARPENTER

**Open, with the permission of the instructor, to seniors, and to all university students.
Dutch will be omitted in 1900–01, and 1901–02; it will be given in 1902–03.**

Course in Gothic

17—Gothic. Streitberg, *Gotisches Elementarbuch.* 2 hours. Mr. REMY

Open, with the permission of the instructor, to seniors, and to all university students.

Course in Germanic Philology

18—General introduction to Germanic philology. Lectures and exercises. 2 hours. Professor W. H. CARPENTER

Open, with the permission of the instructor, to seniors, and to all university students.

Seminar

Germanic Seminar—Middle Low German. Critical study of *Reinke de Vos* (first half-year). Literature of Young Germany (second half-year). 2 hours. Professors W. H. CARPENTER and THOMAS

The Seminar is open to advanced students only. Attendance at the meetings is obligatory upon candidates for the degree of Doctor of Philosophy whose major subject lies in this department.

Public Lectures

A course of lectures in the German language on popular subjects, intended primarily for the students of the University, but to which the general public is also invited, is given yearly under the auspices of the department.

Equipment

The University Library offers excellent facilities for the study of German, both on the literary and linguistic side. In German literature most periods are well represented. The Goethe collection, which consists of more than 1200 titles, affords to the student of Germany's greatest author an exceptional opportunity for the prosecution of his researches. The Scandinavian collection contains a fair representation of the ancient saga and poetical literature, and most of the eminent writers of modern Norway, Denmark, and Sweden.

The Library has sets and the current numbers of all the important periodicals which deal with Germanic literature and Germanic and general philology. It has also sets of periodicals no longer published, and a large collection of the transactions and publications of the learned societies of America and Europe.

The income of the Carl Schurz Library Fund ($10,000), contributed by citizens of New York in commemoration of the seventieth birthday of Carl Schurz, is, by the terms of the gift, devoted in perpetuity to the purchase of books in the field of the German language and literature.

The Carl Schurz Fellowship in the German Language and Literature, of the value of eight hundred dollars, the income of a fund ($10,000) contributed by citizens of New York in commemoration of the seventieth birthday of Carl Schurz, will be awarded every alternate year, beginning July 1, 1902.

Greek

(*Including Archæology and Epigraphy.*)

*EDWARD DELAVAN PERRY, Ph.D	*Jay Professor*
JAMES RIGNALL WHEELER, Ph.D	*Professor*
†MORTIMER LAMSON EARLE, Ph.D	*Professor of Classical Philology*
GONZALEZ LODGE, Ph.D	*Professor of Greek and Latin in Teachers College*
CLARENCE HOFFMAN YOUNG, Ph.D	*Instructor*
JAMES DENNISON ROGERS, Ph.D	*Lecturer*

Courses

Courses **A, B, 1, 2, 3, 4, 5, 6, 7, 14,** and **15** are closed to women. Courses **8, 9, 10, 11, 12, 13, 17, 18, 19, 20, 21, 22, 24, 25, 30,** and the Seminar are open to women on the same terms as to men.

Courses **8, 9, 10, 11, 17, 18, 19, 20, 24,** and **25** are open to auditors.

[NOTE: Only courses offered in 1900–01 are here given.]

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* **Absent on leave.**

† **On Barnard College Foundation.**

A—Elementary course. 5 hours, counting as a three-hours course. Dr. Rogers

Open to students who did not present Greek at entrance; to freshmen as an elective, to others as an optional course. To be given only if elected by three or more students in full standing.

B—First half-year: Selected orations of Lysias. Second half-year: Homer's *Odyssey*, selections. Greek prose composition fortnightly throughout the year. 3 hours. Dr. Young and Dr. Rogers

Open as an elective to freshmen in Columbia College who presented Greek at entrance, and to sophomores who have taken Greek A; to others as an optional course.

3—First half-year: Euripides' *Iphigenia in Tauris;* Sophocles' *Philoctetes*, required reading (in English, French, or German, at the option of the student), and lectures on the Greek drama. Second half-year: Plato's *Protagoras* and Aristophanes' *Clouds*, with required reading as above. 3 hours. Dr. Young (first half-year) and Dr. Rogers (second half-year)

Open as an elective to students in Columbia College who have taken Course B in the previous year.

An additional hour weekly in advanced Greek composition will be offered by Dr. Rogers, and students who take this may count Course 3 as a four-hours course, or Course 4 as a three-hours course. Candidates for Honors in Classics are strongly urged to avail themselves of this opportunity.

6—First half-year: Æschylus' *Agamemnon and Choëphoræ*. Second half-year: Selections from Thucydides. For private reading in the course of the year, with occasional conferences with the instructor: Sophocles' *Electra*. 3 hours. Dr. Rogers (first half-year) and Dr. Young (second half-year)

Open as an elective to juniors and seniors who have taken Course 3 or Course 4, or an equivalent. Open also to graduate students, but may not be counted toward the higher degrees.

7—Greek composition, advanced course. One session weekly, with written exercises, counting as a two-hours course. Professor Wheeler

Open as an elective to juniors and seniors. Open also to graduate students, but may not be counted toward the higher degrees.

8—Aristotle's *Constitution of Athens;* Selections from the Greek orators, chiefly Demosthenes. 3 hours. Dr. Young

Open to seniors and graduate students. May be counted toward the higher degrees.

9—Lectures on Greek literature, with illustrative reading of Greek authors. Part I: Poetry. 3 hours. Professor Wheeler

15—Selections from the Greek Christian Fathers. 2 hours. Dr. Young

Open as an elective to juniors and seniors. Open also to graduate students. May be counted toward the higher degrees if special work is taken in connection with it.

17—Introduction to the study of Greek archæology. Part I: Vases, painting. 2 hours. Professor Wheeler

Open to seniors and graduate students. May be counted toward the higher degrees.

19—Lectures on the manners and customs of the ancient Greeks. 2 hours. Dr. Young

Open to seniors and graduate students. May be counted toward the higher degrees.

20—Readings from Pausanius, with illustrated lectures on the monuments of Olympia and Attica. 2 hours. Dr. YOUNG and Professor WHEELER

Open to seniors and graduate students. May be counted toward the higher degrees.

21—Greek epigraphy. Lectures, and practice in the reading of inscriptions. One session weekly, counting as a two-hours course. Professor WHEELER

Open to graduate students only.

Course in Greek and Latin

Professor LODGE of Teachers College offers a course in Greek and Latin syntax. 2 hours. May be counted toward the higher degrees.

Classical Seminar

Latin Section: The Plebeian Latinity. 2 hours, twice a month, second half-year. Professors PECK and EGBERT

Open to graduate students only.

Greek Section: Interpretation of Euripides, with preparation and discussion of papers. One session weekly throughout the year, counting as a three-hour course. Professor EARLE

Open to graduate students only. Attendance is obligatory upon candidates for the degree of Doctor of Philosophy, and strongly recommended to those for the Master's degree, whose major subject lies in this department.

Courses in New Testament Greek at the Union Theological Seminary

These courses may count as *part* of the work required for the degrees of Master of Arts and Doctor of Philosophy at Columbia University; but students who intend to avail themselves of this privilege must come to an understanding with the Dean of the Faculty of Philosophy of Columbia University with regard to equivalence of courses and additional work required, at the time of registering themselves, or of renewing their registration, as candidates for a degree.

Courses

First Term:

New Testament Grammar; the Synoptic Gospels. 3 hours. Mr. FRAME
The Johannine Writings. 2 hours. Professor VINCENT
Acts of the Apostles. 2 hours. Mr. FRAME
Romans. 2 hours. Professor VINCENT
Colossians or Ephesians. 2 hours. Professor VINCENT
First and Second Thessalonians. 1 hour. Mr. FRAME
Exegetical Seminar. 2 hours. Professor VINCENT

Second Term:

First Corinthians. 2 hours. Professor VINCENT
General Introduction to the New Testament. 2 hours. Professor VINCENT
The Johannine Writings and Pastoral Epistles. 2 hours. Professor VINCENT
Exegetical Seminar. 2 hours. Professor VINCENT
The Synoptic Gospels. 2 hours. Mr. FRAME
Acts of the Apostles. 2 hours. Mr. FRAME
Second Epistle of St. Peter. 2 hours. Mr. FRAME
Philippians and Philemon. 1 hour. Mr. FRAME

Gynecology

George Montgomery Tuttle, M.D	*Professor*
George W. Jarman, M.D	*Chief of Clinic and Instructor*
W. S. Stone, M.D	*Instructor*
Charles Allen Whiting, M.D	*Tutor*
E. L'H. McGinnis, M.D	*Electro-Therapeutist*
B. W. Stiefel, M.D	*Clinical Assistant*
Charles I. Proben, M.D	*Clinical Assistant*
John M. Kennedy, M.D	*Clinical Assistant*
E. P. Mallett, M.D	*Clinical Assistant*
G. H. Mallett, M.D	*Clinical Assistant*
J. J. Higgins, M.D	*Clinical Assistant*
Frank Oastler, M.D	*Clinical Assistant*
William L. Bradley, M.D	*Clinical Assistant*
J. I. Edgerton, M.D	*Clinical Assistant*

Courses

1—The principles and practice of gynecology—Didactic lectures. 3 hours, from March 15 to the end of the academic year. Professor Tuttle

Required, in the second and third years, of candidates for the degree of M.D.

2—Clinical instruction at the Vanderbilt Clinic. 1 hour. F. at 3 P.M. Professor Tuttle

Required, in the third year, of candidates for the degree of M.D.

3—Practical instruction in diagnosis, treatment, and the use of instruments. 6 lessons for each student at the Vanderbilt Clinic. Dr. Jarman and Dr. Stone

Required, in the third year, of candidates for the degree of M.D.

4—Hospital clinics in operative gynecology—Roosevelt Hospital, McLane Operating Theatre. Tu., Th., and Sat. at 2.30 P.M.

Required, in the third year, of candidates for the degree of M.D.

The McLane Operating Theatre of Roosevelt Hospital

This is upon the hospital grounds, immediately opposite the College of Physicians and Surgeons, and is one of the most thoroughly equipped buildings in this country for instruction in the surgery of gynecology.

The cases upon which operations are demonstrated are taken from the gynecological wards of Roosevelt Hospital, which are under the exclusive direction of the Professor of Gynecology, and the cases in which are all available for the instruction given by him.

History and Political Philosophy

William Milligan Sloane, Ph.D., L.H.D., LL.D	*Professor*
Herbert Levi Osgood, Ph.D	*Professor*
William Archibald Dunning, Ph.D	*Professor*
†James Harvey Robinson, Ph.D	*Professor*
William Robert Shepherd, Ph.D	*Tutor*
James Thomson Shotwell, A.B	*Assistant*
†Charles Lee Raper, A.B	*Lecturer*

† On Barnard College Foundation.

There are three groups of courses in this department: disciplinary, narrative, and research. Course A is required of all candidates for the A.B. degree; with it may be classed Courses 1, 2, 3, and 4. Courses 5, 6, 10, 11, 14, 30, and 40 are preparatory to the independent investigation of historical subjects, and the rest are intended for the training of candidates for the higher degrees. These all may be supplemented and complemented by courses given in other departments which deal with subjects constituting an integral part of the domain of history: viz., history of European law, general history of diplomacy, history of American diplomacy, and the historical courses in Economics, Social Science, and Philosophy. The University likewise affords excellent opportunities for the study of archæology, political geography, and philology in their intimate connection with historical research.

Courses in History

A—Epochs of ancient, mediæval, and modern history. 3 hours. Dr. SHEPHERD and Mr. SHOTWELL

Required of all candidates for the A.B. degree.

1—Mediæval and modern political history to 1648. 2 hours. Dr. SHEPHERD

2—Continental European history, modern and contemporaneous (1648–1889). 2 hours. Professor DUNNING and Dr. SHEPHERD

3—English history to the Reform Bill (1832). 2 hours. Dr. SHEPHERD

4—History of the United States to the close of Reconstruction (1877). 3 hours. Professor DUNNING

5—Transition epochs in European history. 2 hours. Professor SLOANE

Open to seniors and juniors.

6—The history of England during the eighteenth and nineteenth centuries. 2 hours. Professor OSGOOD

Open to seniors and juniors.

10—The sources of mediæval and modern European history—Methods of historical study—Langlois, *Manuel de Bibliographie historique* will serve as a basis for the work. 2 hours, second half-year. Professors ROBINSON and OSGOOD

11—The development of European culture during the Middle Ages and Renaissance—The Reformation. 2 hours. Professor ROBINSON

Open to seniors.

12—Mediæval institutions and culture—A research course open only to those who can read Latin, French, and German fluently. Luchaire's *Manuel des Institutions françaises* will be used as a handbook. 2 hours. Professor ROBINSON

Given in 1900–02.

13—Opening of the Lutheran Reformation (1517–26)—A research course, open only to those who can read German and Latin fluently. 2 hours. Professor ROBINSON

14a—Continental history—France under Louis XVI.—The antecedents and opening of the French Revolution. 2 hours, first half-year. Professor ROBINSON

14b—Continental history—The age of the Revolution from 1791 to 1815. 2 hours, second half-year. Open only to those who have taken Course **14a.** Professor SLOANE

15—The work of Napoleon—This course is open to such selected individuals as give evidence of capacity for original research, and read French and German fluently. 2 hours, first half-year. Professor SLOANE

16—The constitutional history of England to 1689. 2 hours. Professor OSGOOD

19—Early church history. 2 hours. Given at the Union Theological Seminary

20—Mediæval church history. 2 hours. Given at the Union Theological Seminary

21—Modern church history. 2 hours. Given at the Union Theological Seminary

22—Seminar in later mediæval and modern European history. 2 hours every other week. Professor ROBINSON

30—Transitions in American history—This course deals with those epochs of American history where its connection with that of Europe is closest. 2 hours. Professor SLOANE

Given in 1901–02.

31—Political and constitutional history of the United States. 2 hours. Professor BURGESS

32—American colonial history during the seventeenth century. Open only to approved candidates for the degrees of A.M. and Ph.D., and to such special students as receive permission to attend. 2 hours. Professor OSGOOD

33—American colonial history during the eighteenth century—This course is open to the same class of students as is History **32**. 2 hours. Professor OSGOOD

34—European politics and the War of 1812—Research course given to selected individuals who show capacity for original research, and read French and German fluently. 2 hours, second half-year. Professor SLOANE

35—The United States during the Civil War and Reconstruction. 2 hours, first half-year. Professor DUNNING

Not given in 1900–01.

36—American church history. 2 hours. Given at the Union Theological Seminary.

37—Seminar in American colonial history. 1 hour. Professor OSGOOD

Courses in Political Philosophy

40—General history of political theories. 2 hours. Professor DUNNING

41—American political philosophy. 2 hours. Professor DUNNING

42—Seminar in political philosophy. 1 hour. Professor DUNNING

Equipment

The University Library is one of the two or three best similar institutions in the country. It contains over 300,000 volumes, among which are many of the great published collections for the study of ancient, mediæval, and modern history. The special library of history and political science numbers upwards of 100,000 volumes. The great libraries of New York, Astor, Lenox, and Tilden foundations, those of the New York and Long Island Historical Societies and of the Bar Association are, under certain conditions, also accessible to students. Fuller information as to courses and opportunities for historical work is given in the circular of the historical department, which may be obtained by applying to the Secretary of the University. Under the auspices of the Academy of Political Science, to which advanced students are eligible as members, opportunities are given for the discussion of questions of interest as presented in papers by specialists.

The department employs in its work the best French and German historical maps and one of the four largest relief globes ever made.

Laryngology

(Including Diseases of the Larynx, Pharynx, and Nasal Passages.)

GEORGE MOREWOOD LEFFERTS, M.D.	*Clinical Professor*
WILLIAM K. SIMPSON, M.D.	*Chief of Clinic and Instructor*
RICHARD FROTHINGHAM, M.D.	*Instructor*
JAMES P. MCEVOY, M.D.	*Clinical Assistant*
EDMUND W. BILL, M.D.	*Clinical Assistant*
JONATHAN DWIGHT, Jr., M.D.	*Clinical Assistant*
JOSEPH E. FULD, M.D.	*Clinical Assistant*
ARTHUR P. COLL, M.D.	*Clinical Assistant*
LEE M. HURD, M.D.	*Clinical Assistant*
JOHN J. MCCOY, M.D.	*Clinical Assistant*
JOHN LESHURE, M.D.	*Clinical Assistant*
PAUL F. SONDERN, M.D.	*Clinical Assistant*
SAMUEL W. THURBER, M.D.	*Clinical Assistant*
FRANK N. EMMERT, M.D.	*Clinical Assistant*

Courses

Instruction in the department of Laryngology (including diseases of the larynx, pharynx, and nasal passages) is both didactic and clinical. It comprises :

1—A systematic course of didactic lectures, which for convenience in teaching and economy of time is given to the fourth-year students collectively in the amphitheatre of the Vanderbilt Clinic.

These lectures are theoretical to a limited extent only, being mainly illustrative and demonstrative in character. They treat of such general principles of pathology, diagnosis, and therapeutics as concern diseases of the throat and nasal passages ; each lecture being illustrated by wall plates in color, models, pathological specimens, apparatus, and instruments, and as the subject may also demand, either the presentation of selected cases with a colored-chalk blackboard sketch of their pathological and diagnostic appearances, or by the personal demonstration of the patient with the aid of the laryngoscopic or rhinoscopic mirror.

During the course, practical illustrations of all the methods of local treatment are given and all the minor surgical operations upon the throat and nasal passages performed in the presence of the class.

Both the subjects and the dates of these lectures, each of which is, as far as possible, complete in itself, are announced in printed form at the beginning of the session, and a copy furnished each student in attendance. 1 hour a week for twenty-eight weeks. M. at 2 P.M. Professor LEFFERTS

Required, in the fourth year, of candidates for the degree of M.D.

2—Practical clinical instruction in the Laryngological Hall of the Vanderbilt Clinic to sections of the class in the use of the laryngoscope, rhinoscope, and tongue spatula. The work of each course of ten lessons is based upon the principles of concise preliminary explanation and personal demonstration, followed by practical work by the student: (1) In examinations of the normal mouth, pharynx, and anterior nasal passages—*i. e.*, oroscopy, median pharyngoscopy, and anterior rhinoscopy—until he has acquired the skilful use of reflected artificial light, by the aid of the concave head mirror, and then (2) in the laryngoscopic and posterior rhinoscopic examination of both normal and pathological cases, all under the direct and personal supervision of the instructors. The necessary instruments and apparatus are furnished by the department. Dr. WILLIAM K. SIMPSON

Required, in the fourth year, of candidates for the degree of M.D.

3—Individual clinical demonstrations, at which, during his course of "section" teaching, each student has demonstrated to him, by the instructor, a certain number of pathological cases, special attention being given to the questions of general diagnosis, differential and bacteriological diagnosis, and treatment. Dr. RICHARD FROTHINGHAM

Equipment

The department of Laryngology occupies the west end of the second floor of the Vanderbilt Clinic. It possesses:

Two large clinic rooms for the separate registration, examination, and treatment of male and female patients. Each of these rooms contains two compartments or alcoves, fitted with Mackenzie light condensers, medicine and instrument cabinets, cuspidors with running water, a compressed-air apparatus for medicated sprays (the steam air-pump and large storage reservoir for compressed air being located in the cellar of the Clinic building), electromotor and galvano-cautery, rheostat and instruments supplied by a special dynamo. One of these rooms (No. 7) is fitted in part with glass cases and cabinets of drawers, to accommodate the "museum of teaching apparatus," charts, models, pathological specimens, and a collection of operative instruments.

An operating room for cases requiring anæsthesia, which also serves as a private examination cabinet for patients, and as an office and demonstration room for the professor.

A large hall, fitted with nineteen separate stalls, each with lamp, "laryngoscope phantom," blackboard, and other instruments and conveniences for the instruction of classes of students in the practical use of the laryngoscope and rhinoscope.

A "demonstration room" for pathological cases to limited numbers of students.

A large, light hallway, with ample and convenient seating capacity, in communication with all the above rooms; used as the reception and waiting room for patients.

Access to the amphitheatre of the Clinic: fitted with electric light for examinative purposes; rheostats for small incandescent lamps and the galvanocautery and electromotor; a dark cabinet for laryngoscopic and rhinoscopic demonstrations, and ample hanging facilities for a large collection of colored wall charts of pathology, etc. The didactic lectures are given in this amphitheatre.

The department is further equipped with a complete collection of the most approved modern instruments and appliances, by the best makers, for the diagnosis and treatment of the diseases of the throat and nose, and for the giving of instruction therein.

Among other things may be mentioned: A complete collection of the modern electric illuminating apparatus for the examination of patients; the electric laryngoscope; apparatus for the transillumination of the accessory cavities of the face; dilators, canulæ, and other instruments used in the treatment of laryngeal stenosis; operative instruments by Pfau of Berlin, arranged in cases and catalogued; laryngoscope "phantoms," by Bock of Leipsic, for exercising the students in the use of the various instruments preliminary to the examination of the living subject; one hundred anatomical models of the healthy and diseased larynx by Steiger of Leipsic and Tobold of Berlin; models of the normal larynx by Bock of Leipsic and by Auzoux of Paris; physiological models to illustrate the normal movements and the various paralyses of the vocal cords; a diagrammatic model to illustrate the mechanical interference of laryngeal neoplasms with the act of phonation; photographs of the living larynx, in health and disease; four hundred wall plates in color, by Wright of New York, of the pathological conditions of larynx, pharynx, naso-pharynx, and nasal passages—these are of large size (42 x 36) to illustrate the clinical lectures; a collection of large drawings, illustrating the anatomy of the accessory sinuses of the nose; also illustrated by a series of sections of the skull, made by Ward of Rochester, and by a series of models of frozen sections of the human head, prepared by Odo Betz and by Elkins; Fränkel's photogravures of the same subjects; drawings and instruments to illustrate the operation of intubation; reproductions of all the earlier tubes for laryngeal catheterization and intubation—this latter collection is historically interesting as illustrating the evolution of the intubation tube; a special manikin, upon which the process of intubation may be practically demonstrated to a large number of students at one time; wet preparations of the larynges of children, demonstrating *in situ* the proper-sized intubation tube, and its exact position in the larynx at different ages (1–15 years); and a series of models, by Elkins, of laryngeal diphtheria;

a collection of skulls, demonstrating the various lesions of the nasal septum and abnormalities of the nasal chambers, and a manikin, upon which the operations of plugging the anterior and posterior nasal passages with the nasopharyngeal space, for hæmorrhage, can be practically illustrated before the class.

The pathological and anatomical museum of the department contains at present one hundred and fifty carefully prepared and mounted wet preparations of the larynx and its diseases. This collection is specially rich in the rare specimens, such as benign neoplasms of the larynx, intrinsic and extrinsic laryngeal cancer, and others.

Latin

Harry Thurston Peck, Ph.D., L.H.D.	*Professor*
James C. Egbert, Jr., Ph.D.	*Professor*
Nelson G. McCrea, Ph.D.	*Adjunct Professor*
Gonzalez Lodge, Ph.D.	*Professor in Teachers College*
Charles Knapp, Ph.D.	*Instructor in Barnard College*
Henry J. Burchell, Jr., A.M.	*Tutor in Barnard College*
George N. Olcott, Ph.D.	*Lecturer*

Course **x** is required in the freshman year of candidates who enter without Latin.

Course **A** or Course **B** is required of candidates for the degree of A.B.

If elementary Latin is not offered as an entrance subject, Courses **x** and **y** are pre-requisite to this course. Course **B** is open as an elective to freshmen in the College.

Courses 1, 2, 3, 4, 5, 6, and 16 may be counted toward the degree of A.B.

Course 5 counts as a partial minor or partial major for A.M., and as a partial minor for Ph.D.

Course 12 counts as a full minor for A.M. and Ph.D., and partial major for Ph.D.

Courses 13 and 27 count as full minor for A.M. and partial major or minor for Ph.D.

Courses 15, 16, 31, and 32 count as a partial major or minor for A.M. or Ph.D.

Course 21 counts as a partial minor for A.M. or Ph.D.

Course 22 counts as a partial minor for A.M. and partial major or minor for Ph.D.

The Latin Seminar counts as a full minor or partial major for A.M., and partial major or minor for Ph.D. It is required of candidates for Ph.D. who take Latin as their major subject.

Courses 5, 6, 12, 15, 16, 21, 22, 27, 32, 33 are open to graduate women students.

Courses 15, 21, 32 are open to auditors.

Courses

A—First term : Livy : Books I and II, syntax. Second term : Odes and Epodes of Horace, prosody. 3 hours. Dr. OLCOTT (first term) and Mr. BURCHELL (second term)

B—Readings in prose and verse illustrative of Roman public and private life. 3 hours. Professor McCREA

1—Tacitus : The *Agricola* and *Annals* (Book I). Horace : Satires and Epistles. 3 hours. Mr. BURCHELL (first term) and Dr. OLCOTT (second term)

Pre-requisite : Course A or B.

2—Catullus—The Letters of Cicero. 2 hours. Professor McCREA
Pre-requisite : Course A or B.

3—Juvenal and Martial. 3 hours. Professor EGBERT
Pre-requisite : Course 1 or 2.

4—Terence : The *Andria* and *Phormio*. Plautus : The *Amphitruo* and *Mostellaria*. 2 hours. Professor McCREA
Pre-requisite : Course 1 or 2 or an equivalent.

5—Roman Epigraphy (introductory course). 2 hours. Professor EGBERT
Pre-requisite : Course 3 or 4.

6—Rapid reading of Horace and Ovid. 2 hours. Professor PECK

12—Roman Epigraphy (advanced course). 2 hours. Professor EGBERT

13—The *Cena Trimalchionis* of Petronius. 2 hours. Professor PECK

15—Lectures on the sources of Roman History, with readings. 2 hours. Professor EGBERT

16—Lucretius (Books I-III). 2 hours. Professor McCREA

21—Introduction to the study of Roman Numismatics. 1 hour. Dr. OLCOTT

22—Latin Prose Composition (advanced course). 2 hours. Professor McCREA

27—Latin Literature. 2 hours. Professor PECK

31—Latin Bibliography. 2 hours first half-year. Professor PECK

32—The Topography and Monuments of Ancient Rome. 2 hours. Dr. OLCOTT

33—The Topography and Monuments of Ancient Rome (Imperial period). 2 hours. Dr. OLCOTT
Pre-requisite : Course 32.

x—Introductory Latin, Grammar, Composition, Cæsar, Cicero, Phædrus. 5 hours (counting for A.B. as 3 points). Dr. OLCOTT

Latin Seminar. 2 hours. Professor PECK

LAW

The courses offered in Law are here indicated. For full information as to the course leading to the degree of Bachelor of Laws consult the statement concerning the School of Law.

Municipal or Private Law

WILLIAM A. KEENER, LL.D.	*Professor*
FRANCIS M. BURDICK, LL.D.	*Professor*
GEORGE W. KIRCHWEY, A.B.	*Professor*
GEORGE F. CANFIELD, A.M., LL.B.	*Professor*
JOHN W. HOUSTON, A.M., LL.B.	*Professor*
CHARLES T. TERRY, A.B., LL.B.	*Lecturer*
HARLAN F. STONE, A.M., LL.B.	*Lecturer*

Courses **1** to **6**, inclusive, constitute the work of the first year in the Law School and are open to seniors in the College. Courses **7** to **15**, inclusive, and Course **20** are open to students who have taken the work of the first year in Law. Courses **16** to **27**, inclusive, are open to students who have taken the work of the first and second years in Law.

Courses

1—Elements of Jurisprudence and Equity. 2 hours. Professor KEENER

2—Contracts. 4 hours. Mr. TERRY

3—Real and Personal Property. 2 hours. Professor KIRCHWEY

4—Torts. 2 hours. Professor BURDICK

4a—Criminal Law. 2 hours. Mr. STONE

5—Common-law Pleading and Practice. 2 hours, second half-year. Mr. STONE

6—Domestic Relations and Law of Persons. 2 hours, first half-year. Professor HOUSTON

7—Quasi-contracts. 2 hours. Professor KIRCHWEY

8—Equity. 2 hours. Professor KEENER

9—Real and Personal Property. 2 hours. Professor KIRCHWEY

10—Agency. 2 hours. Professor CANFIELD

11—Bailments and Carriers. 2 hours. Professor HOUSTON

12—Sales of Personal Property. 2 hours. Professor BURDICK

14—Equity Pleading and Practice. 2 hours, first half-year. Mr. STONE

15—Negotiable Paper. 2 hours. Professor BURDICK

16—Code Pleading and Practice. 2 hours. Mr. STONE

17—Corporations. 2 hours. Professor KEENER

18—Equity. 2 hours. Professor KEENER

19—Evidence. 2 hours. Professor CANFIELD

20—Insurance. 2 hours, second half-year. Mr. STONE

21—Partnership. 2 hours. Professor BURDICK

22—Real and Personal Property. 2 hours. Professor KIRCHWEY

23—Suretyship and Mortgage. 2 hours. Professors BURDICK and KIRCHWEY

24—Wills and Administration. 2 hours. Professor HOUSTON

25—Doctrines Peculiar to New York Law. 2 hours, first half-year. Professor CANFIELD

26—Bankruptcy. 2 hours, first half-year. Professor HOUSTON

27—Office Practice. 2 hours, second half-year. Professor HOUSTON

Public Law and Jurisprudence

JOHN WILLIAM BURGESS, Ph.D., LL.D	*Professor*
MUNROE SMITH, A.M., J.U.D	*Professor*
FRANK JOHNSON GOODNOW, A.M., LL.D	*Professor*
JOHN BASSETT MOORE, A.B., LL.D	*Professor*
MILO ROY MALTBIE, Ph.D	*Prize Lecturer*

The courses in this department fall into two divisions: public law and jurisprudence. The purpose of the courses in public law is to give a complete general view of international, constitutional, administrative, and criminal law. They serve primarily to supplement the courses in the departments of History and Economics, and to give with them a complete system of political science. In the second place, they supplement the courses offered by the department of Private Law, constituting with these a well-rounded legal curriculum. The courses in international, constitutional, and administrative law are also recommended to journalists, students of philosophy and theology, and in general to all who desire to understand the organization and working of governmental systems. The courses in criminal law and in international private law (conflicts of private law) are more professional in their character, and are chiefly intended for law students.

The courses in Roman law and comparative jurisprudence, while constituting an integral portion of a complete legal education, will be found useful to all those who desire a general comprehension of the principles of private law rather than a professional training in its details. The introductory course upon the Roman law (21) and that upon European legal history (23) are especially recommended to students of history, economics, and philosophy.

Courses in Public Law

A—Constitutional Law

1—Comparative constitutional law of the principal European states and the United States—Lectures. 2 hours. Professor BURGESS

2—The governmental organization of the territories and other dependencies of the United States—Lectures. 1 hour, second half-year. Professor BURGESS

5—Seminar in the constitutional law of the United States—Investigation and discussion. 1 hour. Professor BURGESS

The courses in the constitutional history of Europe, England, and the United States (*cf.* courses in history) are regarded as a necessary introduction to the above courses in constitutional law.

B—International Law

6—History of diplomacy—Lectures. 2 hours, first half-year. Professor MOORE

7—History of American diplomacy—Lectures. 2 hours, second half-year. Professor MOORE

8—International law—Lectures. 2 hours. Professor MOORE

10—Seminar in international law. First half-year. Professor MOORE

C—Criminal Law

11—Criminal law, including the conflict of penal laws, and extradition—Lectures. This course is given in the Law School. 2 hours. Professor HOUSTON

D—Administrative Law

16—Comparative administrative law—Lectures. 3 hours, first half-year. Professor GOODNOW

17—Municipal government—Lectures. 2 hours, second half-year. Dr. MALTBIE

18—Law of taxation—Lectures. 2 hours, first half-year. Professor GOODNOW

20—Seminar in administrative law. First half-year. Professor GOODNOW

Courses in Roman Law and Comparative Jurisprudence

21—Roman law I—History and institutes of Roman law—Lectures. 2 hours, first half-year. Professor MUNROE SMITH

22—Roman law II—Discussion of selected cases from the *Corpus Juris Civilis*, principally in contracts. 2 hours, second half-year. Professor MUNROE SMITH

23—History of European law (early German law; Frankish law; feudalism; the canon law; the reception of the law-books of Justinian in mediæval Europe; the reaction against Roman law, canon and civil; and the movement towards national codification)—Lectures. 2 hours. Professor MUNROE SMITH

Given in 1900–01 and alternate years thereafter.

24—Comparative jurisprudence—Lectures. 2 hours. Professor MUNROE SMITH

Given in 1901–02 and alternate years thereafter.

25—International private law (conflicts of private law)—Lectures and discussion of cases. 1 hour. Professor MUNROE SMITH

30—Institutes of Spanish private law—Lectures. 2 hours, second half-year. Professor MUNROE SMITH

29—Seminar in legal history and comparative legislation. Professor MUNROE SMITH

Literature

(See pages 89 and 116)

Materia Medica and Therapeutics

GEORGE L. PEABODY, M.D. .... *Professor*

Courses

Instruction in this department is both didactic and clinical.

1—The didactic course embraces general therapeutic considerations; modes of administering drugs; the individual drugs used in treating disease, their physiological effects and therapeutic uses, and the toxicological effects of such of them as are poisons ; remedial measures other than the use of drugs, including electricity, dietetics, the use of water (including bathing and the administration of mineral waters) ; physical exercise, and the like.

The department has a full collection of all the drugs lectured upon, as well as of their important preparations. After each lecture every student has an opportunity of examining specimens of all the drugs and preparations that formed the subject of the lecture. 3 hours. Professor Peabody

Required, in the second and third years, of candidates for the degree of M.D.

2—The clinical instruction in therapeutics is given in the New York and Roosevelt Hospitals.

A large number of patients are presented to the class, and opportunity is afforded of observing the modifications in the natural course of diseases which are produced by therapeutic procedures, including not only the action of drugs, but also the effects of such remedial measures as cold baths, wet packs, electricity, and the like.

Once a week for three months at the New York Hospital, once a week for two months at the Roosevelt Hospital. Professor Peabody

Recommended, in the third and fourth years, to candidates for the degree of M.D.

Mathematics

J. Howard Van Amringe, Ph.D., L.H.D., LL.D.	*Professor*
Thomas Scott Fiske, Ph.D.	*Professor*
Frank Nelson Cole, Ph.D.	*Professor*
James Maclay, C.E., Ph.D.	*Instructor*
Cassius Jackson Keyser, A.M.	*Instructor*
Henry Bedinger Mitchell, E.E., A.M.	*Tutor*
Walter Wheeler Cook, A.M.	*Assistant*
†Edward Kasner, Ph.D.	*Tutor*
David H. Pollard, A.B.	*Assistant*
†Grace Andrews, A.M.	*Assistant in Barnard College*

Courses

A—Geometry, algebra, and trigonometry—Volumetric and spherical geometry (Davies's *Legendre*, Books 6-9) ; algebra, including the arithmetical and geometrical progressions, undetermined coefficients, and the elementary principles of logarithms (Wells's *College Algebra*) ; trigonometry, including the use of tables of logarithms and the solution of plane triangles. 3 hours. Dr. Maclay, Mr. Keyser, and Mr. Mitchell

Prescribed for freshmen in the College who did not offer advanced mathematics at entrance.

1—Trigonometry—Analytical and spherical trigonometry, and mensuration (Davies's *Legendre*) ; applications to algebra, imaginary numbers. 3 hours, first half-year. Professor Fiske

Open to students in the College who have taken Course A, or who offered advanced mathematics at entrance.

† On Barnard College Foundation.

2—Advanced algebra, including permutations and combinations, probability, and the general theory of equations (Wells's *College Algebra*). 3 hours, second half-year. Professor FISKE

Open to students in the College who have taken Course 1.

3—Trigonometry and algebra—Trigonometry (as in Course 1) and algebra (as in Course 2). 5 hours, first half-year. Dr. MACLAY, Mr. KEYSER, and Mr. MITCHELL

Open to students in the College who have taken Course A, or who presented advanced mathematics at entrance. Prescribed for all first-year students in the School of Mines, School of Chemistry, and School of Engineering.

4—Analytical geometry—The equivalent of Wentworth's *Analytical Geometry*. 5 hours, second half-year. Dr. MACLAY, Mr. KEYSER, and Mr. MITCHELL

Open to students in the College who have taken Course 3. Prescribed for all first-year students in the School of Mines, School of Chemistry, and School of Engineering.

5—Analytic geometry—The equivalent of Wentworth's *Analytical Geometry*. 3 hours. Professor VAN AMRINGE

Open to students in the College who have taken Course 1.

6—Calculus—Osborne's *Differential and Integral Calculus*. 3 hours. Professor VAN AMRINGE

Open to students in the College who have taken Course 4 or Course 5. Prescribed for second-year students in the School of Mines, School of Chemistry, and School of Engineering.

7—Differential equations. 3 hours. Mr. MITCHELL
M., W., and F. at 9.30.

Open to students in the College who have taken Course 6.

101—Advanced calculus. 3 hours. Professor FISKE

102—Theory of functions of a complex variable. 3 hours. Professor FISKE

Not given in 1900-01.

103—Riemann's theory of functions, including elliptic functions. 3 hours. Professor COLE

104—Analytical theory of curves of double curvature aud curved surfaces. 3 hours. Dr. MACLAY

105—Theory of Abelian functions. 3 hours. Professor FISKE

106—Theory of groups. 3 hours. Professor COLE

Not given in 1900-01.

107—Modern theories of geometry. 3 hours. Mr. KEYSER

Courses 101-107 are intended primarily for graduate students, men and women, and count toward the degrees of A.M. and Ph.D. Course 101 may be taken by specially qualified seniors in the College, by permission of the Dean.

Equipment

In the equipment of the department of Mathematics is a large number of models, charts, and instruments. An elaborate set of models illustrates the metric system of weights and measures. A set of about fifty models of elementary solid and spherical geometry is intended to exemplify the demonstrations contained in Davies's *Legendre*. These are made of cherry wood with markings in inlaid ebony, and are of unusually large size. There are several similar models representing the different plane sections of the cone. A series of wooden models, constructed by Schroeder of Darmstadt, illustrates elementary solid geometry, and contains, in addition, examples of all the different forms of the surfaces of the second order. There is a series of models of descriptive geometry, also constructed by Schroeder. The horizontal and vertical projections are traced upon boards solidly joined together at right angles and of convenient size to allow in general the representation of three different models, or of three different views of the same model. The form and construction suggest a division of these models into two classes: (1) the representation in metal of lines and surfaces, adjusted upon axes, the production of several of their positions being given; (2) the representation of solid bodies in hard wood, including the exhibition of their plane sections in various directions and the intersections of different surfaces and solids.

A collection of models, which was presented to the department by President Low, having been purchased by him from the German University Exhibit at the Chicago Exposition in 1893, illustrates analysis situs, theory of functions of a complex variable, surfaces of higher order, their singularities and curvature, and line-geometry.

A series of charts illustrates the theory of plane algebraic curves, especially those of the fourth order, the resolution of higher plane singularities into equivalent elementary singularities, the expression of functions by means of infinite series and infinite products, and conformal representation by means of algebraic and elliptic functions.

The collection of mathematical works in the Library of the University is especially rich in treatises and in sets of collected works of mathematicians. All the mathematical journals of importance are regularly received, and the Library possesses complete sets of most of them.

Mechanical Engineering

(See page 107)

Mechanics

ROBERT SIMPSON WOODWARD, C.E., Ph.D. . . . . *Professor*
MICHAEL IDVORSKY PUPIN, Ph.D. . . . . *Adjunct Professor*
JOSEPH CLEMENT PFISTER, A.M. . . . . *Tutor*

Courses 3 and 10–18 are open to women on the same terms as men.

Courses that may be Taken for the Degrees of Master of Arts and Doctor of Philosophy

All graduate courses in Mechanics presuppose familiarity with the general principles of physics and a working knowledge of the differential and integral calculus. Students beginning graduate work should have met the requirements at least of Physics 1 and Mathematics 6.

Candidates for the degrees of A.M. and Ph.D., whose major subject is Mechanics, should have fulfilled the requirements of Mechanics 1 or 3, or an equivalent, before taking up graduate work. Such candidates are advised, in general, to pursue one minor in the department of Mathematics.

Courses 1, and 3 to 9 may be pursued as minors for the degrees of A.M. and Ph.D. by candidates who have not taken such courses in undergraduate work. Two hours per week for one year constitutes a minor for the degree of A.M., and two hours per week for two years a minor for the degree of Ph.D.

Time equivalent to three hours per week for two years devoted to Courses 10 to 18 is required as a major for the degree of Ph.D., and three hours per week for one year as a major for the degree of A.M. For a minor for the degree of Ph.D., a time equivalent to two hours per week for two years is required.

1—Analytical mechanics. As a text for this subject, Rankine's *Applied Mechanics* is used, attention being confined chiefly, however, to Part I, Principles of Statics (including hydrostatics); Part III, Principles of Kinematics; and Part V, Principles of Dynamics (including hydrodynamics). The text is supplemented by lectures on special topics, by written solutions and discussions of typical problems, and by demonstrations with the aid of apparatus. Particular attention is given to the doctrine of units and dimensions of units, and to problems affording actual applications of principles. 3 hours, first and second half-year. Professor WOODWARD

This course is recommended to all students who may desire to pursue the higher applications of the science in dynamical astronomy, electricity, magnetism, thermodynamics, elasticity, and physical geodesy.

3—Theoretical mechanics. This requires familiarity with the elements of the differential and integral calculus. 2 hours, first and second half-year. Mr. PFISTER

Designed to be supplementary to Course 2, and is offered to those desiring a knowledge of the general principles of the science rather than the special principles essential to engineering.

4—Thermodynamics, with special reference to its bearing on the theory of heat engines. 3 hours, second half-year. Professor PUPIN

6—Theory of dynamo and motor (introductory), covering elements of the theory of electric, magnetic, and electro-dynamic potential, theory of electromagnetic and electro-dynamic induction, and its application to the theory of an ideal dynamo. 3 hours, first half-year. Professor PUPIN and Mr. TOWNSEND

Required of students in Electrical Engineering.

7—Theory of direct-current dynamo and motor, covering Hopkinson's theory of dynamo and motor designing, and Froelich's method of dynamo and motor testing. 3 hours, second half-year. Professor PUPIN and Mr. TOWNSEND

8—Theory of alternators and transformers. 3 hours, first half-year. Professor PUPIN

9—Theory of variable currents, particularly the theory of polyphase and of high frequency and high potential currents. 3 hours, second half-year. Professor PUPIN

10—Advanced theoretical mechanics.—General principles of kinematics, statics, and kinetics; methods of Lagrange, Hamilton, and Jacobi; application of the doctrine of energy to the interpretation of mechanical phenomena. Lectures, 2 hours, first and second half-year. Professor WOODWARD

11—Theory of the potential function.—General exposition of theory; derivation of equations of Laplace and Poisson, and theorems of Gauss, Green, and Stokes; with application to problems in gravitation, hydromechanics, static electricity, and terrestrial magnetism. Lectures, 2 hours, first and second half-year. Professor WOODWARD

12—Geodynamics.—Amount and distribution of the earth's mass; phenomena of precession, nutation, and oceanic tides; variation of density, gravity, and pressure within the earth; thermal properties, and secular contraction; mechanics of crumpling and crust movements. Lectures, 2 hours, first and second half-year. Professor WOODWARD

13—Mathematical theory of elasticity.—Analysis of stresses and strains and expression of strains in terms of stresses; discussion of potential energy of strained media and the constants essential to define them; theory of wave motion in elastic media, with applications to sound and light. Lectures, 2 hours, first and second half-year. Professor WOODWARD

14—Maxwell's theory of electricity and magnetism. Lectures, 2 hours, first and second half-year. Professor PUPIN

14a—Theory of Bessel's functions and spherical harmonies. Lectures, 1 hour, first and second half-year. Professor PUPIN

15—Electro-magnetic theory of light.—Theory of dispersion, absorption, and polarization. Lectures, 3 hours, first half-year. Professor PUPIN

16—Advanced thermodynamics, including its application to thermo-electricity and thermo-magnetism, physical chemistry, and caloric engines. Lectures, 2 hours, first and second half-year. Professor PUPIN

17—Theory of oscillations. 2 hours. Professor PUPIN

18—Theory of the conduction of heat in solids; with applications to spheres, cylinders, and parallelopipeds. Lectures, 2 hours, first and second half-year. Professor WOODWARD

Other Courses Offered by the Department

2—Elementary mechanics. Loney's *Elements of Statics and Dynamics* is used as a text. 2 hours, first and second half-year. Mr. PFISTER

5—Elementary thermodynamics and hydromechanics. Thermodynamics, 2 hours, first half-year; hydromechanics, 2 hours, second half-year. Mr. PFISTER

19—Analytical mechanics, abridged course. 2 hours, first and second half-year. Mr. PFISTER

20—Thermodynamics and hydromechanics, abridged course. 2 hours, first and second half-year Mr. PFISTER

Equipment

The department is supplied with various machines and models of machines for illustrating the so-called mechanical powers, with balances, dynamometers, air-pump, hydraulic pumps, and other apparatus to which reference is made in the course of theoretical studies. For work of investigation requiring accurate measurement of time and distance, the department is supplied with an electric, break-circuit chronometer, an electro-chronograph, two standard metres, and a cathetometer of precision. The department has a well-equipped electrical research laboratory under the direction of Professor Pupin. A limited number of advanced students can be accommodated in it. In addition to its own appliances, the department has access to the apparatus of the allied departments, especially that of the department of Electrical Engineering, thus affording the facilities of an extensive equipment to students in advanced work. The research laboratory is provided with a complete set of apparatus for performing Hertz's classical experiments bearing upon the Faraday-Maxwell electro-magnetic theory, and also a slow-speed conductor for long electrical waves such as occur in telegraphy and telephony.

Metallurgy

HENRY MARION HOWE, A.M., B.S. .... *Professor*
WRAY ANNIN BENTLEY, B.S .... *Instructor*
WILLIAM C. CLARKE, E.M .... *Assistant*
JOSEPH STRUTHERS, Ph.D .... *Honorary Lecturer*

A—Undergraduate Courses

1—General metallurgy—As an introduction to Courses 2, 3, 4, 5, and 6, history, definition of terms, calorimetry, refractory materials, furnaces, fuels (natural and artificial), chimneys, blast engines, regulators, pyrometry, furnace-gas analysis. 3 hours lectures, first half-year, during October, November, and December. Mr. BENTLEY

Pre-requisites: Chemistry 1 and Physics 1, or equivalent. Required of third-year students in the Schools of Mines and Chemistry. Students in the course of Metallurgy have an additional hour a week. Together with Courses 2, 3, and 6, counts as a minor for the degree of A.M.

2—The metallurgy of steel and iron—The properties of steel, cast iron, and wrought iron as influenced by composition and by thermal and mechanical treatment, together with a brief account of the chief processes by which they are made. 3 hours a week during January. Professor HOWE

Pre-requisite: Metallurgy 1. Required of third-year students in the Schools of Mines and Chemistry. Together with Courses 1, 3, and 6A, counts as a minor for the degree of A.M.

3—The metallurgy of iron and steel—Classification and constitution of iron and steel; the blast furnace; composition and properties of cast iron; composition and properties of wrought iron and steel, and the influence of thermal and mechanical treatment; puddling; the Bessemer, open-hearth, and crucible processes; forging and rolling; casting cast iron and steel; and the minor processes of steel and iron-making. 3 hours lectures, second half-year. Professor HOWE

Pre-requisites: Chemistry 1 and Physics 1, or equivalent. Required of third-year students in the courses of Metallurgy and Mechanical Engineering, and of fourth-year students in the courses of Civil Engineering and Electrical Engineering. Students in the course of Metallurgy have an additional hour a week. Together with Courses 1, 2, and 6A, counts as a minor for the degree of A.M.

4—Metallurgy of copper—The properties of copper and of its alloys; the constitution of alloys in general; the reverberatory and cupola smelting processes for oxide and for sulphide ores; the converter or Bessemerizing process; minor smelting processes; wet and electrolytic processes. 3 hours lectures, first half of year, during October, November, and December. Professor HOWE

Pre-requisite: Metallurgy 1. Required of fourth-year students in the Schools of Mines and Chemistry. Students in the course of Metallurgy have an additional hour a week. Together with Courses 5 and 6A, counts as a minor for the degree of A.M.

5—Metallurgy of the other non-ferrous metals—Lead; silver; gold; zinc; mercury; tin; aluminum; nickel; cobalt; arsenic; antimony. Properties; effect of impurities; ores; methods of extraction, separation, and refining. 3 hours lectures during January, first half-year, and through second half-year. Mr. BENTLEY

Pre-requisite: Metallurgy 1. Required of fourth-year students in the Schools of Mines and Chemistry. Students in the course of Metallurgy have an additional hour a week. Together with Courses 4 and 6A, counts as a minor for the degree of A.M.

6—Laboratory work—Pyrometry: the calorific power and other properties of fuels; gas analysis; the microscopic study of metals and alloys; the thermal and mechanical treatment of steel; the roasting and smelting of lead and copper ores; refining black copper; desilverizing base bullion; cupelling; roasting and lixiviating processes; the fusibility and other properties of slags and of refractory materials. 3 afternoons a week, first half of third year. Professor HOWE, Mr. BENTLEY, and Mr. CLARKE

Pre-requisite: Metallurgy 1; and pre-requisite or parallel: Metallurgy 3, 4, and 5. Required of third-year students in the course of Metallurgy. Together with Courses 4 and 5, or with Courses 1, 2 (3 or 4), counts as a minor for the degree of A.M.

6A—Laboratory work—Pyrometry; the thermal treatment of steel; roasting processes; smelting in the cupola furnace; desilverizing base bullion; and refining black copper. 10 afternoons in the first half-year. Professor HOWE, Mr. BENTLEY, and Mr. CLARKE

Pre-requisite: Metallurgy 1; and pre-requisite or parallel: Metallurgy 2, 4, and 5. Required of fourth-year students in the course of Mining Engineering.

B—Graduate Courses

Special courses, consisting of personal instruction and original experimental investigation, will be arranged for advanced students according to their individual needs and ability. Some of these investigations will be made at metallurgical works into processes in actual use there, others in the metallurgical and analytical laboratories of the department.

The amount of time required for these courses varies, being governed by the rule that a course or courses should occupy 18 hours a week (preparation included) if taken as a major subject, and 9 hours a week if taken as a minor subject, for the degree of A.M. or Ph.D.

7—Advanced course in calorimetry—Determination of practical and theoretical values of various combustibles.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

8—Advanced course in pyrometry—Determination of the temperatures of metallurgical and other high-temperature operations, *e. g.*, of the Bessemer converter for steel and for copper, the open-hearth steel furnace, the iron blast furnace, the copper smelting cupola furnace, steam-boiler fires, and the like.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

9—Microscopic study of iron, steel, and other metals—Preparation and microscopic examination of specimens.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

10—The heat treatment of steel and other metals, with determination of the resultant effects on the physical properties.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

11—The formation-points, melting-points, and specific heat of slags, and their density and viscosity when molten.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

12—The influence of strain upon the properties of metals.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

13—The chemistry of roasting processes, including the expulsion of arsenic and antimony.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

14—The chemistry of the iron blast furnace.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

15—The chemistry of basic dephosphorizing processes.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

16—Search for new and useful alloys.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

17—Fire-brick and other refractory materials, their resistance to heat and to corrosion.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

18—Electrolytic refining and depositing processes.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

19—Wet processes for extracting gold, silver, and copper.

Pre-requisites: Metallurgy 1, 3, 4, and 5, or equivalent.

C—Summer Course

20—Summer course in metallurgy—Two weeks are spent at metallurgical works in studying the operations there carried out. The students are given individual and class instruction and are required to make complete descriptions of the various processes, including sketches of furnaces and apparatus. This course is held in the vacation between the third and fourth years, and in two divisions. The first, required of students in Mining Engineering, visits copper, lead, gold, and silver works; the second, required of students in Mechanical Engineering, visits iron and steel works. As the two divisions are held at different times, students in Metallurgy are required to attend both. Professor HOWE and Mr. BENTLEY

METALLURGICAL EXCURSIONS—During the term the students are taken to the metallurgical establishments in the vicinity of the city, embracing iron blast furnaces, and Bessemer, open-hearth, and puddling works, the smelting of lead and copper ores, the Bessemerizing of copper matte, the refining of copper by furnace and electrolytic methods, the desilverizing of base bullion by zinc, and the parting and refining of gold and silver by both electrolytic and acid methods.

Equipment

LECTURE DIAGRAMS—There is an important collection of large lecture diagrams, prepared with great care, and many of them colored, illustrating the various metallurgical furnaces and appliances, and also showing graphically the sequence of operations in many metallurgical processes, and illustrating these processes in a realistic way.

In addition the lectures are illustrated, not only by the models referred to below, but more especially by actual demonstrations, as for instance in the heat-treatment of metals, in the wet metallurgical processes, in the rolling of metals, for which purpose a small roll-train is used, and in other like ways.

MODELS AND DRAWINGS—There is an excellent collection of models of metallurgical apparatus, furnaces, Bessemer converters, roll-trains, etc., and a very large number of detailed drawings, most of them copied from the working drawings of establishments in actual operation.

METALLURGICAL COLLECTION—There is a collection of about 3000 specimens of ores, slags, metals, fuels, refractory materials, and the intermediate and final products of the more important metallurgical processes. Suites of specimens of great educational value, either prepared in the laboratories of the department or given to it, are added constantly.

MICROSCOPIC SPECIMENS—Microscopic sections of metals and alloys, and photomicrographs of them, are prepared by the department and received by gift and exchange, and are rapidly forming a valuable collection, especially important to students of the micrography of metals.

ANALYTICAL LABORATORY—The department has an analytical laboratory open to the students in metallurgy.

METALLURGICAL LABORATORY—In order to enable the student to carry out metallurgical processes on an illustrative scale, this laboratory is equipped with furnaces for roasting, for heating, and for melting in large and small crucibles, apparatus for electrolytic and hydro-metallurgical processes, a full-sized cupola furnace, and an English cupelling furnace for cupelling and for "bringing forward" and refining copper.

For high-temperature investigations the laboratory already has several special furnaces and it will be equipped for the current year with a large furnace heated by electricity.

This laboratory has also a collection of the various modern calorimeters, of calorimetric, optical, photometric, and several thermo-electric pyrometers, including an autographic attachment; apparatus for analyzing furnace gases, and equipment for preparing sections of metals; lathes, grinders, polishers, a microphotographic camera, and several excellent microscopes especially adapted for examination of opaque objects ; a sclerometer, and many other valuable instruments.

Of these, the Le Chatelier pyrometers and the apparatus for the microscopic study of metals are found especially useful, and much attention is given to their study.

Mineralogy

ALFRED J. MOSES, E.M., Ph.D	*Professor*
LEA McI. LUQUER, C.E., Ph.D	*Instructor*
HERBERT P. WHITLOCK, C.E	*Assistant*

Courses

1—Blowpipe analysis—The tests for 40 elements and the qualitative analysis of minerals, alloys, and slags. Four hours a week laboratory, one half-year. Professor MOSES, Dr. LUQUER, and Mr. WHITLOCK

Required of first-year students in the Schools of Mines and Chemistry. Open to students in the College who have taken Chemistry 1.

2—Crystallography—History, general characters, laws, forms, simple measurements, and calculations. 2 hours lectures and conferences, one half-year. Professor MOSES

Required of first-year students in the Schools of Mines and Chemistry. Open to students in the College who have taken Physics 1.

8—Physical crystallography—Short laboratory course in determination of physical characters of crystals. 1 hour lecture, 1 hour laboratory, one half-year. Professor MOSES

Required of third-year students in Organic Chemistry. Pre-requisite: Course 2, or equivalent.

3—General mineralogy—A short course *outlining* the work in Courses 1, 2, 4, and 8. 2 hours lectures, 1 afternoon laboratory. Professor MOSES

Open to students in the College who have taken Chemistry 1 and Physics 1.

4—Descriptive and determinative mineralogy—Study of 200 important species, their properties, uses, and methods of determination. 2 hours lectures, 3 hours laboratory, second half of first year and first half of second year. Professor MOSES and Dr. LUQUER

Required of first- and second-year students in the Schools of Mines and Chemistry. Open to juniors in the College and to candidates for the degree of A.M. or Ph.D., in their first year, whose minor subject is Mineralogy. Pre-requisites: Courses 1 and 2.

5—The minerals of building-stones—Study of common species, their properties, methods of determination, and their economic effect on building-stones. 2 hours lectures, and conferences. Dr. LUQUER and Mr. WHITLOCK

Required of second-year students in the course of Civil Engineering. Open to students in the College who have taken Chemistry 1, and to candidates for the degree of A.M. as a half-minor course.

6—Optical mineralogy—Principles, apparatus, and distinguishing characters of minerals in thin sections. 2 hours lectures and 1 afternoon for two months. Dr. LUQUER

Required of second-year students in the School of Mines. Open to candidates for the degree of A.M. as a half-minor course, supplementing Course 5, and to students in the College. Pre-requisite: Course 5, or equivalent.

7—Optical mineralogy—Longer course, including principles, apparatus, and distinguishing characters of minerals in sections; determination of optical constants; study of microstructure; microchemical tests; separation of constituents and preparation of sections. 8 hours for one year. Dr. LUQUER

Open to candidates for the degree of A.M. whose major subject is Mineralogy, and to candidates for the degree of Ph.D. whose minor subject is Mineralogy. Pre-requisite: Course 3, or equivalent.

9—Physical crystallography—Optical, thermal, electric, and magnetic properties of crystals, with experiments; the geometric form with measurement and delineation; the effects of mechanical forces; theories of structure. 8 hours for one year. Professor MOSES

Open to candidates for the degree of A.M. whose major subject is Mineralogy, and to candidates for the degree of Ph.D. whose minor subject is Mineralogy. Pre-requisite: Course 3, or equivalent.

10—Physical crystallography—Longer course, including study of the crystals of some group. 12 hours for two years. Professor MOSES

Open to candidates for the degree of Ph.D. whose major subject is Mineralogy. Prerequisite: Course 3, or equivalent.

11—Mineralogy—Study of assigned group or species. 12 hours for two years. Professor MOSES

Open to candidates for the degree of Ph.D. whose major subject is Mineralogy. Prerequisite: Course 3, or equivalent.

NOTE

Course 7 is especially a minor course for geologists, Course 8 a minor course for chemists, and Courses 9 and 10 major courses for mineralogists.

Equipment

The work of the students in the college courses and in general mineralogy is performed in the blowpipe laboratory, a large room with conference tables and seats for about 75 men, and in the adjoining lecture-room, in which are the student collections of crystal models and minerals. Students in optical mineralogy use a separate room with north light, and for crystal measurements and monochromatic light determinations there is provided a large dark room.

Attached to the department is the Egleston Mineralogical Museum, containing about 30,000 labelled specimens, and including a systematic collection, an economic collection of ores, building materials, and minerals used in chemical industries, a collection illustrating the genesis and alteration of minerals, a collection illustrating the character of minerals, and small collections of artificial minerals and New York City minerals.

There are, in the lecture and conference room, a separate student collection and a lecture collection. Several thousand unlabelled specimens are used in determinative work. The department possesses also about 600 sections of minerals, and 1500 crystal models in wood and glass.

Among the collections of minerals that have been presented to the museum from time to time, the largest is that of Dr. Egleston, consisting of about 5000 specimens. Others that may be mentioned are: the Gillmore collection, made in Paris under the direction of the Abbé Hauy, and presented by the late Gouverneur Kemble of West Point; a collection of Schulsberg (Wis.) stalactites, exhibited at the Sanitary Fair; a fine suite of Russian minerals, presented by the Czar; a collection of American minerals, presented by the late Geo. T. Strong; two of the finest cerussites in the world; the Julien collection of minerals from Chesterfield, Mass.; the collection of Professor How, of King's College, Nova Scotia; and a very valuable collection made by Dr. Egleston in Japan.

In addition, a large number of gifts have been received, and these have been supplemented by careful purchasing and exchanging.

Mining

HENRY S. MUNROE, E.M., Ph. D. .... *Professor*
ROBERT PEELE, E. M .... *Adjunct Professor*
* FRANK C. HOOPER, Met.E .... *Instructor*
CHARLES KNAPP HITCHCOCK, Jr., A.M., E.M .... *Assistant*
EDWARD B. DURHAM, E.M .... *Lecturer*

Courses

1—Excavation and tunnelling. 3 hours, first half-year. Professor PEELE

Excavation of earth—tools and methods employed; support of excavations; special methods for quicksand and other water-bearing material; steam shovels and other mechanical excavators; handling and transportation of excavated material; comparative costs. Explosives—black powder, nitro-glycerine and its compounds, and other high explosives; their nature, manufacture, and use. Excavation of rock—methods of drilling and blasting; mammoth blasts; submarine blasting. Tunnelling—methods of driving and timbering; handling and transportation of excavated material; drainage and ventilation of tunnels; submarine tunnels; permanent lining of tunnels; accidents in tunnelling; location of tunnels.

Required of second-year students in the course of Mining Engineering.

Pre-requisites: entrance requirements in Mathematics, Chemistry, and Physics.

2—Boring and shaft-sinking. 2 hours, second half-year. Professor PEELE

Boring—methods and appliances for small depths and for deep boring; European rod system and cable tool or oil-well method; boring with diamond drill, for prospecting and other purposes; survey of bore-holes. Shaft-sinking—methods and tools employed in soft material and in rock; sinking linings or drop-shafts, and other special methods of sinking in water-bearing formations and quicksand; drainage of shafts; handling and hoisting of excavated material. Shaft timbering and other systems of lining employed in special cases.

Required of second-year students in the course of Mining Engineering.

Pre-requisite: Mining 1.

2b—Earth and rock excavation, tunnelling, dredging, and shaft-sinking. 2 hours, first half-year. Professor PEELE

Excavation of earth—hand methods and mechanical excavators; costs of excavation. Dredging—by natural means and machinery; construction and operation of the various classes of dredges. Explosives—black powder, nitroglycerine, and dynamite. Drilling and blasting—hand and machine drilling; charging and firing; mammoth blasts; submarine blasting. Tunnelling—methods in rock and soft materials; timber and masonry linings; submarine tunnelling. Boring—earth augers; sounding with drive-pipe: deep boring with rope and drop tools and with diamond drill. Shaft-sinking—in rock and soft water-bearing soils; methods of excavation; shaft linings.

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* Absent on leave.

Required of third-year students in the course of Civil Engineering.

3—Exploration, development, and methods of working. 2 hours. Professor MUNROE

Mineral deposits, characteristics of beds, masses, veins, and other deposits, and the irregularities and disturbances to which they are subject, as affecting the work of exploration and mining. Examination and survey of mineral properties; relation of topography to geological structure; construction of maps and sections and tracing of probable outcrops as a guide to exploration. Prospecting by ditches, pits, and deep boring. Development; choice of methods; location of openings. Working of deposits and support of excavations; methods applicable to deposits of different thickness, inclination, and character. Coal mining; vein mining; working of thick deposits and soft-ore bodies. Salt mining. Surface workings. Hydraulic mining.

Required of third-year students in the courses of Mining Engineering and Metallurgy.

Pre-requisites: Mineralogy 3 or 4, Geology 2. Pre-requisites or parallels: Geology 3, Mining 1 and 2.

Counts, together with Mining 4, and 5, or with Mining 6, 9, and 10, as a minor for the degree of A.M.

4—Ore dressing, milling, and the mechanical preparation of coal. 2 hours. Professor MUNROE

The general principles and theory of dressing; preliminary operations; hand dressing; cleansing; crushing; jigging with and without preliminary sizing; slime concentration; milling of gold and silver ores; and description of typical dressing works and coal-washing plants in this country and abroad.

Required of third-year students in the courses of Mining Engineering and Metallurgy.

Pre-requisites: Mineralogy 3 or 4, Physics 1 or 2. Pre-requisite or parallel: Mechanics 1 or 2.

Counts, together with Mining 3 and 5, as a minor, or with Mining 5, 7a, and 8 as a major, for the degree of A.M.

5—Ore-dressing laboratory. Afternoon work for three weeks, second half-year. Professor MUNROE and Mr. HOOPER

Mechanical testing of ores and coal by laboratory methods. Working tests with simple dressing apparatus. Adjustment and operation of concentrating machines.

Required of fourth-year students in the courses of Mining Engineering and Metallurgy.

Pre-requisite or parallel: Mining 4.

Counts, together with Mining 3 and 4, as a minor, or with Mining 4, 7a, and 8 as a major, for the degree of A.M.

6—Mine engineering. 2 hours first half-year and 1 hour second half-year. Professor MUNROE

Extraction; methods and machinery; handling mineral in working places; underground haulage. Surface handling and transportation; arrangements for loading and unloading cars and vessels, and for storing of minerals. Mineral railroads. Common roads. Drainage; sources of mine waters; methods for the control and raising of water; dams; drainage-levels. Water supply. Ventilation; air of mines; mine gases; methods of ventilation; control and measurement of air currents. Accidents to men in shafts, levels, and working places; firedamp and dust explosions; mine fires; inundations; rescue and relief of men.

Required of fourth-year students in the course of Mining Engineering.

Pre-requisites or parallels: Mining 3 and 7; Civil Engineering 12 and 17.

Counts, together with Mining 3, 9, and 10, as a minor for the degree of A.M.

7—Mine plant. 3 hours first half-year and 2 hours second half-year. Professor PEELE

Description and critical discussion of the machinery and appliances employed in the equipment of mines; erection and care of machinery; accidents, breakage, and repairs. Hoisting-engines, drums, wire rope, skips, and cages, head-frames; calculation of power required and methods of equalizing hoisting load; devices for prevention of over-winding; shaft-sinking plant. Drainage—buckets, tanks, hand-pumps, Cornish and direct-acting pumps; operation of pumps by electricity, compressed air, and hydraulic power. Ventilation—natural ventilation, underground furnaces, positive blowers and centrifugal fans; efficiencies of fans. Air compressors—straight-line and duplex; simple and compound (stage) compression; methods of dealing with heat of compression; conveyance of compressed air in pipes; reheating; efficiencies. Machine drills—their construction and operation. Coal-mining machines or coal cutters.

Required of fourth-year students in the course of Mining Engineering.

Pre-requisites: Civil Engineering 5 and Mechanical Engineering 11. Parallels: Mechanical Engineering 12 and 13.

Counts, together with Mining 7a and 8, as a major for the degree of A.M.

7a—Mine constructions. 1 hour, second half-year. Professor PEELE

Building-stones; brick; limes; cements and concretes. Foundations in various soils; masonry, and timber construction, with special reference to mine work; mine buildings; trestles; ore-bins.

Required of third-year students in the courses of Mining Engineering and Metallurgy.

Counts, together with Mining 7 and 8, or with Mining 4, 5, and 8, as a major for the degree of A.M.

8—Design of mine plant. 4 afternoons first half-year and 3 afternoons second half-year. Professor PEELE and Mr. HOOPER

The students are assigned problems involving the design and construction of mine plant, in connection with the development of a mine. This work supplements the lectures on the design of mining machinery, involving reading and study, and the preparation of working drawings, bills of material, specifications, and estimates.

The work is done under constant supervision and advice in the draughting-room, and forms a part of the graduating project.

Required of fourth-year students in the course of Mining Engineering.

Pre-requisites: Mechanical Engineering 1 and 2. Parallel: Mining 7.

Counts, together with Mining 7 and 7a, or with Mining 4, 5, and 7a, as a major for the degree of A.M.

9—Mine surveying. 1 hour, second half-year. Professor MUNROE

This course supplements the practical work in underground surveying in connection with the summer school in mining. It includes the general principles of underground surveying, the construction of mine maps and models of mine workings, the measurement of contracts, the location of lines for new work.

Required of fourth-year students in the courses of Mining Engineering and Metallurgy.

Pre-requisites: Civil Engineering 1, 15, and 16.

Counts, together with Mining 3, 6, and 10, as a minor for the degree of A.M.

10—Administration and mine accounts. 1 hour, second half-year. Professor MUNROE

Administration, organization, and business management, mine accounts, and cost sheets. Examination and valuation of mines.

Required of fourth-year students in the courses of Mining Engineering and Metallurgy.

Pre-requisite or parallel: Mining 6.

Counts, together with Mining 3, 6, and 9, as a minor for the degree of A.M.

Summer School

11—The summer school of practical mining is held in June and July, at some mine or mines selected for the purpose, in the vacation between the third and fourth years, and lasts six weeks. Professor PEELE and Assistants

Pre-requisites or parallels: Mining 3 and 4.

The course of instruction includes three weeks' detailed study of the plant and methods of working at some important mine or mines; one week practical mine surveying; one week excursion to other mines and mining regions; and one week geological work, surface and underground.

The course of study includes the subjects of shaft-sinking, drifting, stoping, timbering, underground haulage, hoisting, mine drainage, ventilation, surface plant and machinery, mine buildings, shops, houses, water supply, drainage, organization, and administration. The students are divided into small squads, and assigned each day to a foreman, or working gang of miners, or to a definite portion of the mines, for the study of some definite subject. Each squad of students is visited several times during the day by the instructor, who supplements the explanations of the miners and indicates subjects demanding special study and observation. Manual labor, and the acquirement of manual dexterity by the student, are subordinated to the development of his powers of observation, and to the careful and critical study of the work going on about him, and the recording of his observation and study in notes and sketches taken on the spot. The students' note-books are examined and criticised each evening. By thus carefully systematizing and directing the work of the student his time is economized, and as much ground is covered in a week as would be in a month under ordinary circumstances, and the work is done more thoroughly.

This summer school has been in successful operation since 1877, and has proved itself an indispensable adjunct to the course of instruction. It bears the same relation to the study of mining as laboratory work to the study of chemistry or physics, or clinical instruction and hospital practice to the study of medicine.

In 1897 the summer school was held in Michigan. The detail work, occupying four weeks, was carried on in the mines of the Pittsburg and Lake Angeline Iron Co. Short visits were then made to the Lake Mine of the Cleveland Cliffs Iron Co., and the Lake Superior Section Sixteen mine, and finally a few days were spent in the copper district, at the Atlantic mine and mill, the surface plants of the Calumet and Hecla and the Tamarack mines, and the Calumet and Hecla concentrating mills.

In 1898 the summer school was held in West Virginia and Virginia. The detail work was done in the bituminous collieries of the Caswell Creek Coal and Coke Co., near Bramwell, West Virginia. Visits were then made to the Pocahontas, Peerless, Norfolk, Angie, Pulaski, Crozer, and Turkey Gap collieries, all situated in the Pocahontas coal field. The last week of the session was spent in the Cripple Creek iron and zinc region of Virginia, where the class visited the Bertha, Wythe, and Cedar Run mines, the Bertha zinc furnaces, and the Pulaski iron furnace.

The summer school of 1899 was held in the lead region of southeast Missouri and the Wyoming Valley coal field, near Wilkes-Barre, Pennsylvania. Two weeks were occupied by study of the Central and Theodora lead mines, at Flat River, Mo., and the concentration mill at which their ore is treated. Then, from Wilkes-Barre as headquarters, the remainder of the session was devoted to visits to the Prospect, Dorrance, Maltby, Exeter, Stanton, Nottingham, Sugar Notch, and Glen Lyon collieries.

In 1900 the summer school was held in the Cripple Creek gold district of Colorado. Between three and four weeks were devoted to detailed study of the plant and methods employed in the Vindicator and Lillie mines. A week was then spent in making short visits to the Victor, Portland, Independence, Wild Horse, and Granite mines.

Required of students in the courses of Mining Engineering and Metallurgy, in the vacation between the third and fourth years.

Optional to the same students, if without conditions, in the vacation between the second and third years.

Graduate Courses

Special courses, consisting of personal instruction, reading, and experimental investigation, will be arranged for advanced students according to their individual needs and ability. These investigations will be made at mines and dressing works either in connection with the summer school or elsewhere as assigned, with additional work, as required, in the library and in the laboratories of the department. These courses vary in difficulty and in the amount of time necessary, according as the student is a candidate for the degree of A.M. or Ph.D., and according as he pursues Mining as a major or a minor subject. The time required is governed by the rule that a course or courses should occupy about 18 hours (outside reading and study included) a week if taken as a major subject, and about 9 hours a week if taken as a minor subject. The following are suggested:

12—Methods of mining—Critical study of methods used in some mining region, or for a certain class of deposits; output per man, amount of timber and explosive required, and other details affecting cost. Study of conditions as determining choice of method. Determination of loss of mineral in mining Accidents to men.

Pre-requisites: all the courses in Mining.
Major for the degree of A.M. or Ph.D.

13—Mining plant—Critical study of rock drilling, or coal cutting, or hoisting, or haulage, or ventilating plant at some mine or mines. Determination of efficiency and conditions affecting same.

Pre-requisites: Mining 7 and 8.
Major for the degree of A.M. or Ph.D.

14—Deep mining—Study of problems of deep mining, vertical versus inclined shafts, hoisting and pumping from great depths, temperature and ventilation, efficiency of labor, rock pressure as affecting methods of mining and timbering.

Pre-requisites: all the courses in Mining.
Major for the degree of A.M. or Ph.D.

15—Ore dressing—Critical study of some detail of the ordinary dressing methods, crushing, or screening, or classification, or jigging, or slime treatment, or dry concentration, or magnetic separation, or milling of gold or silver ores, or mechanical preparation of coal. Determination of efficiency, and of conditions essential to success.

Pre-requisites: Mining 4 and 5.
Major for the degree of A.M. or Ph.D.

16—Examination of a coal-washing plant, or an ore-dressing plant—4 to 6 weeks work in the mill and in the laboratory, with conferences.

Pre-requisites: Mining 4 and 5.
Minor for the degree of A.M.

17—Examination of a mineral property, or a mine—4 to 6 weeks devoted to field and underground work in the summer school of practical mining, with conferences at convenience of professor.

Pre-requisites: all the courses in Mining.
Minor for the degree of A.M.

18—Economic studies in mining—Study of existing conditions affecting the production and cost of some mineral or metal, as, for example, anthracite coal, copper, or gold.

Pre-requisites: all the courses in Mining.
Major or minor for the degree of A.M.

19—Mining and ore dressing—Mining 3, 4, and 5. 4 hours, with laboratory work and reading as required.

Pre-requisites: Mining 1 and 2. Count together as a minor for the degree of A.M.

20—Mining engineering—Mining 3, 6, 9, and 10. 4 hours lectures and reading as required.

Pre-requisites: Civil Engineering 5 and Mining 1 and 2. Count together as a minor for the degree of A.M.

21—Design of mine plant—Mining 7, 7a, and 8. 3 hours and 5 afternoons draughting-room work.

Pre-requisites: Civil Engineering 5, and Mining 1, 2, and 3. Count together as a major for the degree of A.M.

22—Design of ore-dressing works—Mining 4, 5, 7a, and 8, with 1 hour conference additional, first half-year. 3 hours and 5 afternoons laboratory and draughting-room work.

Pre-requisite: Civil Engineering 5. Count together as a major for the degree of A.M.

23—Mining—1, 2, 3, 4, 5, 6, 7, 7a, 8, 9, 10, 11, being all the undergraduate courses in the department of Mining.

Count together as a major and one minor for the degree of A.M.

Equipment

LECTURE ILLUSTRATIONS—The lectures on mining are illustrated by over 40,000 blue prints from negatives made for the purpose. These prints are collected in scrap-books illustrating the different courses of lectures, and each student has the use of one of these books for reference during the lecture, and for home study. These blue prints have many advantages over the usual form of lecture illustrations by lantern-slides or wall diagrams. The latter are, however, used when necessary to supplement the blue prints.

MINING LIBRARY—The University Library contains complete sets of the transactions of all mining, metallurgical, and engineering societies, and of the more important periodical publications on these subjects. There is also a large and complete collection of books on mining, and all new publications of value are added as they appear. In addition, a small departmental library has been created, which is accessible to students at all times.

MINING MUSEUM—The subject of mining is illustrated by collections as follows: Maps of coal and metal mines of this and other countries. Working drawings, diagrams, and photographs of mine plant, and of mining and dressing machinery. Models of mines and parts of mines and of mine plants. Mining tools: picks, shovels, hammers, drills, blasting apparatus, lamps, safety-lamps, anemometers, hand-power and machine drills. Ores and dressing products from typical works in this and other countries. Surveying instruments: geological compasses and clinometers, attraction compasses, dipping needles, hanging compasses and arcs, transits, lamp signals, rods, and apparatus for plumbing and measuring shafts.

Among the more notable exhibits are large relief models of two mines of the Cleveland Cliffs Iron Mining Co. of Michigan, a similar model of the Saratoga gold mine in Colorado, a set of three glass models and two relief models of the Copper Queen mine in Arizona, and a glass model of the Calumet and Hecla and Tamarack copper mines. There is also a large model of the St. Joseph Lead Co.'s dressing works at Bonne Terre, Missouri.

A very complete collection of working drawings of mine plant, and an unusually large collection of underground photographs, taken by magnesium light, are worthy of particular notice.

MINING LABORATORIES—Seven large rooms in the basement and sub-basement of Engineering are being equipped as laboratories for the Department of Mining. These laboratories are not intended to replace the careful study of mining methods and of the operations of ore dressing at the mines and dressing works in connection with the summer school of mining, but are intended to supplement such study, and in particular to afford opportunities that cannot be obtained at the mines. When completed these laboratories will be unique in many respects, and in advance of anything yet attempted at any mining school, and will afford unequalled opportunities for study and research.

These laboratories will include:

THE LABORATORY FOR MECHANICAL ASSAYS, which contains small crushers, rolls, and screens, and conveniences for sampling, hand-picking, jigging, and vanning small samples of ore, and for panning gold-bearing gravel. A Richards laboratory classifier, and several Vezin laboratory jigs have been added recently to the equipment of this room.

THE LABORATORY FOR WORKING TESTS will contain small power jigs, a hand-jig, a buddle, a frame, a keeve, and other similar apparatus for working a ton or more of ore at a time.

THE LABORATORY OF DRESSING MACHINERY will contain full-sized machines of standard types, each arranged so that the products, heads, middlings, and tailings are returned at once to the same machine for retreatment. With a small quantity of ore each machine can thus be operated as long as may be necessary, and the student is afforded an opportunity to become familiar with the adjustments of the machine and the tests of proper and successful working. The apparatus now being installed includes a two-sieve jig, a three-sieve jig, and a five-sieve jig, a round table, a Frue vanner, and a Wilfley table, and the necessary crushing and screening apparatus and classifiers.

THE LABORATORY FOR MILLING GOLD AND SILVER ORES includes a stamp mill, copper plates, pan, and settler, which will be arranged to be run in connection with concentrating apparatus when necessary.

MINES AND DRESSING WORKS—Numerous coal, iron, and other mines, slate and stone quarries, and metallurgical works are easily accessible from New York in from one to four hours by rail; magnetic iron mines in New York, New Jersey, and Pennsylvania; hematite mines and stone quarries in the same states and in Connecticut; anthracite mines in Pennsylvania; and zinc mines in New Jersey and Pennsylvania. New York and adjacent states produce each year more than half the pig-iron and coal, and over one third of the total value of the mineral product of the whole country. New York City is the headquarters of numerous corporations operating mines and metallurgical works in this and other countries, and is one of the most important mining centres of the world. Within a radius of one hundred miles of New York City may be studied the best practice in mining and metallurgy under most varied conditions, and the most modern and effective mining and dressing machinery and smelting plants in the country. By going a little farther, one may reach the bituminous coal fields and the natural gas, oil, and salt regions in one direction, and the pyrites deposits and granite and marble quarries of Vermont in the other; while the excursions of the summer class in mining extend as far as the iron, copper, zinc, lead, silver, and gold regions of Michigan, Missouri, Montana, and Colorado.

Music

EDWARD ALEXANDER MACDOWELL, Mus. Doc.	*Professor*
LEONARD BEECHER MCWHOOD, A.B.	*Tutor*
GUSTAV HINRICHS	*Conductor*

The courses in this department fall into four divisions: the technique of musical composition, general musical culture, musical dictation, and practical training in orchestral and choral music. The aim of the technical courses is to teach music theoretically and scientifically with a view to training musicians competent to teach and to compose. In the general courses, music is treated historically and æsthetically as an element of liberal culture; the technical side of the art is explained, and the lectures are supplemented by illustrations and analysis.

Courses

1—General musical culture—The origin of music and its relation to speech and the emotions. Primitive music and instruments. The history of music from the earliest times up to the 19th century. Acoustics; form; analysis; musical instruments in use up to the present century, with practical illustrations. 1 hour. Professor MACDOWELL

2—General musical culture—This course, which is a continuation of Course 1, treats of the development of forms, the song, romanticism, instrumental development and the composers for piano-forte, the virtuoso, modern orchestration and symphonic forms, the music drama, impressionism versus absolute music, and color versus form, the relationship of music to other arts, musical criticism. 1 hour. Professor MACDOWELL

Courses 1 and 2, while outlining the purely technical side of music, aim at giving a general idea of it from its historical and æsthetic side. They are open to all students.

3—Harmony—This course treats of general theory, harmony, chords and their mutual significance, altered chords, suspensions, modulation, and analysis. 2 hours. Lectures and class-work. Mr. MCWHOOD

Open to all students.

4—Counterpoint—This course treats of counterpoint, canon, fugue, and analysis. The first half-year is confined to vocal writing; the second half-year includes instrumental writing. 2 hours. Lectures and class-work. Professor MACDOWELL

Open to all students who have taken Course 3, and to such persons, otherwise qualified, as can demonstrate to the Professor of Music, by examination or otherwise, that they are competent to profit by it.

5—Orchestration—This course treats of free composition, analysis, instrumentation, and symphonic forms. 2 hours. Lectures and class-work. Professor MacDowell

Open to all students who have taken Course 4 and Course 11, and to all persons, otherwise qualified, who can demonstrate to the Professor of Music, by examination or otherwise, that they are competent to profit by it. [Not given in 1900-01].

6—Musical dictation—Melodic and rhythmic dictation, and the beginning of harmonic dictation. 1 hour. Mr. McWhood

Open to all students.

7—Musical Seminar—This course treats of free harmony and the practical composition of music. It may be considered as a continuation of Course 3. 1 hour. Professor MacDowell

Open to all students who have taken Course 3, and to such persons, otherwise qualified, as can demonstrate to the Professor of Music, by examination or otherwise, that they are competent to profit by it.

8—University chorus. 2 hours. Mr. Hinrichs

9—University orchestra. 2 hours. Mr. Hinrichs

Courses 8 and 9 do not count toward a degree; they are open, without fee, to all properly qualified students.

10—Musical dictation, advanced. This course treats, especially, of harmonic dictation. 1 hour. Mr. McWhood

Open to students who have taken Course 6, and to others equally qualified.

11—Free composition, advanced course. This course, which is a continuation of Course 7, should be taken in connection with Course 4. A thorough knowledge of harmony and some experience in composition are required. 1 hour. Professor MacDowell

Open to students who have taken Course 7, and to others equally qualified.

Equipment

A collection of music and of books of reference is placed at the disposal of students. It includes many orchestral and opera scores, the piano-forte classics, and vocal music, besides many theoretical, historical, and biographical works. The department has also a collection of instruments for the use of students participating in the university orchestra.

Neurology

M. Allen Starr, M.D., LL.D.	*Professor*
Frederick Peterson, M.D.	*Chief of Clinic and Instructor*
William H. Caswell, M.D.	*Instructor*
Pearce Bailey, M.D.	*Clinical Assistant*
C. E. Atwood, M.D.	*Clinical Assistant*
A. W. Ferris, M.D.	*Clinical Assistant*
Archibald Campbell, M.D.	*Clinical Assistant*
R. H. Cunningham, M.D.	*Clinical Assistant*
A. B. Bonar, M.D.	*Clinical Assistant*
S. P. Goodhardt, M.D.	*Clinical Assistant*
Smith Ely Jelliffe, M. D.	*Clinical Assistant*
B. E. Krystall, M.D.	*Clinical Assistant*
L. M. Gibson, M.D.	*Clinical Assistant*

STUART HART, M.D.	*Clinical Assistant*
G. E. NEUHAUS, M.D.	*Clinical Assistant*
A. ROVINSKY, M.D.	*Clinical Assistant*
WALTER TIMME, M.D.	*Clinical Assistant*

Courses

1—The diseases of the mind and nervous system—Didactic lectures. 1 hour for five months with demonstrations, illustrated with the magic-lantern, of the pathology of nervous diseases. Professor STARR

Required, in the third and fourth years, of candidates for the degree of M.D.

2—Clinical lectures at the Vanderbilt Clinic—At these clinics all forms of nervous disease, including insanity, are demonstrated. During the months of didactic instruction the clinics are so arranged as to illustrate the clinical side of the subject lectured upon. 1 hour. F. at 2 P.M. Professor STARR

Required, in the fourth year, of candidates for the degree of M.D.

3—Practical instruction in neurology—"Section teaching," by the chief of clinic, at which a division of fifteen students is taught the practical examination of nervous patients, including electro-diagnosis and electro-therapeutics. 10 lessons for each student in the Vanderbilt Clinic. Dr. PETERSON

Required, in the fourth year, of candidates for the degree of M.D.

4—Insanity—4 clinics at the Ward's Island Insane Asylum. S. in October at 2 P.M. Dr. PETERSON

Optional, in the fourth year, for candidates for the degree of M.D.

Normal Histology

(See page 190.)

Obstetrics

EDWIN B. CRAGIN, M.D.	*Professor*
JAMES D. VOORHEES, M.D.	*Tutor*
FRANKLIN A. DORMAN, M.D.	*Instructor*

Courses

1—Theory and practice of obstetrics—Lectures. 3 hours, from October 1 to March 15. Professor CRAGIN

Required, in the third year, of candidates for the degree of M.D.

2—Recitations and demonstrations. 1 hour, for each student in the second year of the curriculum. One sixth of the class receives instruction daily, by recitations and demonstrations, in which specimens and models from the anatomical, physiological, and pathological museums are used. Dr. VOORHEES

Required, in the second year, of candidates for the degree of M.D.

3—Practical instruction at the Sloane Maternity Hospital—Members of the graduating class in medicine are required each to attend at this hospital a certain number of cases of labor. For this purpose the students of the fourth year are divided, at the beginning of the academic year, into sections of six, each section remaining on duty for two weeks. During this time they are furnished with lodgings, free of charge, in the hospital, so that they may be summoned quickly to cases of emergency. Daily bedside instruction is given by the Instructor, who is the resident physician at the Sloane Hospital, and an examination on the work of the week is held there by him every Saturday. A daily clinical lecture is also given at the hospital, and instruction upon the manikin. Dr. Dorman

Required, in the fourth year, of candidates for the degree of M.D.

The Sloane Maternity Hospital

(See Index.)

The Sloane Maternity Hospital is situated upon the grounds of the College of Physicians and Surgeons, and the service is under the exclusive direction of the Professor of Obstetrics in the College, the Instructor in Obstetrics being the resident physician.

The wards of the Hospital since its recent enlargement furnish one hundred and sixteen beds, and there are ample accommodations for the house staff, students, and nurses.

The operating-room is equipped with all modern surgical and obstetrical conveniences, and has seating accommodations for fifty-one students.

The number of deliveries averages over eleven hundred a year. These, with the obstetric operations and the subsequent treatment of women and infants, afford invaluable practical experience, such as is offered at no other medical school in this country.

Ophthalmology

Herman Knapp, M.D.	*Professor*
Charles H. May, M.D.	*Chief of Clinic and Instructor*
John Herbert Claiborne, M.D.	*Instructor*
Ward A. Holden, M.D.	*Clinical Assistant*
Henry H. Tyson, M.D.	*Clinical Assistant*
Jackson M. Mills, M.D.	*Clinical Assistant*
Edward B. Coburn, M.D.	*Clinical Assistant*

Courses

1—Clinical lectures, at the Vanderbilt Clinic, upon the diseases of the eye—In selected cases the diagnosis is made, treatment applied, and minor operations are performed before the class.

Before and after the lectures, as opportunity offers, microscopic demonstrations of the pathological histology of the eye are made by Dr. Holden. 1 hour. Tu. at 2 P.M. Professor Knapp

Required, in the third year, of candidates for the degree of M.D.

2—Practical instruction, at the Vanderbilt Clinic, in the use of the ophthalmoscope and oblique illumination. 6 lessons for each student. Dr. May

Required, in the third year, of candidates for the degree of M.D.

3—Practical instruction, at the Vanderbilt Clinic, in the determination of the acuteness of sight, field of vision, color perception, refraction, accommodation, and motility of the eye. 6 lessons for each student. Dr. CLAIBORNE

Required, in the third year, of candidates for the degree of M.D.

4—Hospital clinics in the diseases and the operative surgery of the eye, at the New York Ophthalmic and Aural Institute, 44 and 46 East 12th Street. Wed. from 2 to 3.40 P.M. To these clinics the students are invited in sections. Professor KNAPP

Optional, in the third year, to candidates for the degree of M.D.

ORIENTAL LANGUAGES

Indo-Iranian Languages

A. V. WILLIAMS JACKSON, L.H.D, Ph.D	*Professor*
ABRAHAM YOHANNAN, A.M	*Lecturer*

The courses of instruction in this department are intended to be introductory to the study of comparative philology and of the history of religion, as well as to the study of the history, antiquities, and literature of India and Persia and also of Armenia. The course arranged for beginners in Sanskrit, Indo-Iranian 1, may be taken with advantage in connection with any of the Latin, Greek, or other linguistic courses.

Courses 1, 2, 3, and 11 are open to all university students (including seniors in Columbia College as well as candidates for higher degrees and special students). In the case of Course 1, candidates for higher degrees will be required to supplement the study by some additional work that will be assigned, or by taking some kindred course in the department. Course 1 may also be taken as an elective by juniors in the College. Courses 4, 5, 6, 7, 10, and 12 are open to advanced students only. Courses 8 and 9 are open to students pursuing one other course in the department.

Courses 1, 2, 3, 4, and 11 are intended to be given each year. Courses 5, 6, 7, 8, and 12 form a supplementary series. Two of this series will be given each year according to the requirements of the students in attendance.

Course 9, on some special Iranian subject, and Course 10, on Zoroaster and Buddha and their teaching, will be offered every second and third year, respectively.

Course 11 is open to auditors, and to women on the same terms as to men.

Courses

1—Sanskrit, elementary course. Whitney's *Grammar*, Perry's *Primer*, Lanman's *Reader*. 3 hours. Professor JACKSON

[2—Avestan, elementary course—Grammar and reading of texts. Jackson's *Avesta Series: Part I, Grammar; Part II, Texts.* 2 hours. Professor JACKSON

Not given in 1900-01. To be given in 1901-02.]

3—Sanskrit, advanced course. First half-year: Dandin's *Dasdkumāracarita* with the native Commentary; or a Sanskrit drama. Second half-year: Introduction to the study of the Veda. 2 hours. Professor JACKSON

4—Avestan, advanced course—Interpretation of texts, antiquities, and literature. Geldner's *Text of the Avesta*. 2 hours. Professor JACKSON

5—Pāli, elementary course. E. Müller's *Simplified Pāli Grammar*, Elwell's *Nine Jātakas*. 1 hour. Professor JACKSON

[6—Old Persian cuneiform inscriptions. Spiegel's *Die altpersischen Keilinschriften*, Bartholomae's *Handbuch der altiranischen Dialekte*, Weissbach and Bang's *Die altpersischen Keilinschriften*. 1 hour, first half-year. Professor JACKSON

This course is to run parallel with the advanced Avestan.
Not given in 1900–01. To be given in 1901–02.]

[7—Pahlavi, introductory course. C. de Harlez's *Manuel du Pehlevi*. 1 hour, second half-year. Professor JACKSON

This course is to run parallel with the advanced Avestan.
Not given in 1900–01. To be given in 1901–02.]

8—Sanskrit literature—Lectures on some branch of the literature; rapid reading of assigned texts. 1 hour. Professor JACKSON

[9—Zoroastrian Gāthās—Reading of texts with the Pahlavi and the Sanskrit version. 1 hour. Professor JACKSON

Not given in 1900–01. To be given again in 1902–03.]

11—Modern Persian, introductory course. First half-year: Grammar and reading. Salemann and Shukovski's *Persische Grammatik*. Second half-year: Interpretation of Sa'di's *Gulistān*. 2 hours. Mr. YOHANNAN

12—Modern Persian, second-year course. Selections from Firdausī, from Omar Khayyām, and from Hāfiz. 2 hours. Mr. YOHANNAN

Course in Armenian

1—Principles of the grammar, with selected readings. 2 hours. Mr. YOHANNAN

Seminar

Indo-Iranian Seminar. 1 hour. Professor JACKSON

Lectures

A course of afternoon lectures on the literature, antiquities, and religion of ancient India and Persia, open to all students of the University and to auditors, is given during the winter months. Public announcement will be made when these lectures are to be delivered.

Course in the Science of Language

Introduction to the science of language. Professor JACKSON

This course is open to seniors in the College, and to all university students, men and women alike, and to auditors. It may not be counted toward the degree of Master of Arts or Doctor of Philosophy, except on the basis of special work done in connection with it. It is planned to add in this course a second year of study in which the student shall devote himself to research in the philology of one particular family of languages. In the year 1901–02 Professor Gottheil and Professor Jackson propose to offer advanced courses in Semitic and Indo-Iranian linguistics.

Semitic Languages

RICHARD J. H. GOTTHEIL, Ph.D. ....*Professor*
ABRAHAM YOHANNAN, A.M. ....*Lecturer*

Courses 1, 2, 3, 4, 10, 12, 13, 15, 16, and 17, and the seminar, are open to seniors in Columbia College and to university students; Courses 5, 6, 7, 8, 9, 11, 14, to advanced students only. Courses 1, 2, 4, 10, 11, 12, 13, 15, 16 are open also to juniors in Columbia College.

All the courses in Semitic Languages except the seminar are open to auditors.

Courses in Hebrew

The course in Hebrew extends over three years. The first year is devoted to the study of the elements; the second, to the study of the syntax and the acquiring of ease in translating from Hebrew into English and from English into Hebrew; the third, to a critical study of one or more books of the Bible.

The attention of students in the College is directed to the fact that it is desirable that those who intend entering a theological seminary after graduation shall have had at least two years' previous training in Hebrew. Opportunity for this training is given the students of Columbia College, Hebrew being an elective in both the junior and senior classes.

1—Biblical Hebrew, elementary course—Davidson's *Introductory Hebrew Grammar.* 2 hours. Professor GOTTHEIL

2—Biblical Hebrew, second course—Rapid reading of Selected Psalms in connection with Gesenius's *Hebräische Grammatik* (26th ed.) and Driver's *Hebrew Tenses* (3d ed.). 2 hours, first half-year. Professor GOTTHEIL

3—Biblical Hebrew, third course—Interpretation of the Aramaic portions of the Old Testament. 2 hours, second half-year. Professor GOTTHEIL

4—Rabbinical Hebrew—Selected readings from the geographical literature. 2 hours, first half-year. Professor GOTTHEIL

5—Rabbinical Hebrew—Selected Readings (in Hebrew and Arabic) from the Jewish philosophical writings of the Middle Ages. 2 hours, second half-year. Professor GOTTHEIL

For Courses 4 and 5, a previous knowledge of Biblical Hebrew is demanded.

6—Rabbinical Hebrew—The newly discovered text of Ecclesiasticus. 2 hours, second half-year. Professor GOTTHEIL

Given in 1901-02.

Courses in Semitic Epigraphy

7—Interpretation of the Phœnician inscriptions, with an introduction to Semitic palæography and the history of the alphabet. 1 hour. Professor GOTTHEIL

8—Interpretation of the Aramæan inscriptions of Sinjirli (*Mittheilungen aus den Orientalischen Sammlungen*, Heft xi, Berlin, 1893), and of the *Corpus Inscriptionum Semiticarum*, vol. ii. 1 hour. Professor GOTTHEIL

Given in 1901-02.

9—Interpretation of the Sabæan and Hymyaritic inscriptions contained in the *Corpus Inscriptionum Semiticarum*, vol. iv. 1 hour. Professor GOTTHEIL

Given in 1902–03.

For Courses 7 and 8, which are open to advanced students only, a previous knowledge of Hebrew and Aramæan, respectively, is demanded; for Course 9, a previous knowledge of Arabic.

Courses in Assyrian

10—Elementary course—Study of the Syllabary, with readings from selected portions of Abel and Winckler's *Keilschrifttexte zum Gebrauch bei Vorlesungen*, and the study of Delitzsch's *Assyrian Grammar*. 2 hours. Professor GOTTHEIL

11—Advanced course—The Babylonian accounts of the creation and flood (Paul Haupt, *Das Babylonische Nimrodepos*, and Fr. Delitzsch, *Assyrische Lesestücke*). Assyrian Syllabaries. 2 hours. Professor GOTTHEIL

Given in 1901–02.

Courses in Arabic

12—Elementary course—Study of Socin's *Arabic Grammar*, with exercises in translating Arabic into English and English into Arabic. Professor GOTTHEIL

Given in 1901–02.

13—Second course—Study of Brünnow's *Chrestomathie aus arabischen Prosaschriftstellern*. Professor GOTTHEIL

Given in 1901–02.

14—Third course—Advanced work. First half-year: Interpretation of the Mufassal of Alzamahshari. Second half-year: The modern Arabic dialects of Egypt and Syria. 2 hours. Professor GOTTHEIL

Courses in Syriac

15—First course. First half-year: Nöldeke's *Syrische Grammatik*, in connection with selected readings from the Peshitta. Second half-year: Interpretations of selected portions of the *Acta Martyrum* (ed. Bedjan). 2 hours. Professor GOTTHEIL and Mr. YOHANNAN

16—Second course. First half-year: Interpretation of Lagarde's *Analecta Syriaca*. Second half-year: Interpretation of the Syriac Grammar *Kethābhā dhesemhē*) of Bar Hebraeus. 2 hours. Professor GOTTHEIL

[In case there should be a demand for instruction in Modern Syriac, Mr. Yohannan will make arrangements for a course.]

Course in Ethiopic

17—Principles of the grammar and easy readings in connection with Prætorius's *Aethiopische Grammatik*. 1 hour. Professor GOTTHEIL

Semitic Seminar

18—The seminar will take up the study of current questions in Semitic philology with special reference to modern methods of linguistic research.

Tu. evening at 8.15.

Attendance at the seminar meetings will be obligatory upon candidates for the degrees of Master of Arts and Doctor of Philosophy whose major subject is in Semitic Languages. The meetings are open also to advanced students one of whose minor subjects is in the department of Semitic Languages.

Course in Turkish

First half-year: Principles of the grammar, in connection with the study of A. Müller's *Türkische Grammatik* (*Porta Linguarum Orientalium*, pars xi). Second half-year: Exercises in Turkish conversation and in the reading of Turkish newspapers. 2 hours. Mr. YOHANNAN

Courses in Semitic Languages at the Union Theological Seminary

A detailed announcement of these courses is given in the circular issued by the division of Oriental Languages. Such courses may be counted as part of the work required for the degrees of Master of Arts and Doctor of Philosophy.

Equipment

The Columbia University Library (about 300,000 volumes) contains most of the important periodicals which deal with Oriental research, among them the *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, *Journal of the Royal Asiatic Society*, *Journal Asiatique*, *Journal of the American Oriental Society*, *American Journal of Philology*, *Transactions of the American Philological Association*, *Wiener Zeitschrift für die Kunde des Morgenlandes*, *Indische Studien*, *Zeitschrift für Keilschriftforschung*, *Zeitschrift für Assyriologie*, *Revue Semitique*, *Proceedings of the Society of Biblical Archæology*, *Beiträge zur Assyriologie*, *Zeitschrift für Aegyptische Sprache*, *Revue d'Histoire des Religions*, *Revue des Études Juives*, *Orientalische Bibliographie*, *Hebraica*, a complete set of the publications of the various Congresses of Orientalists, *Jewish Quarterly Review*, *Revue d'Assyriologie*; of periodicals of wider range which contain matter of interest to Orientalists, *Zeitschrift für vergleichende Sprachforschung*, Bezzenberger's *Beiträge zur Kunde der Indogermanischen Sprachen*, *Göttingische Gelehrte Anzeiger*, *Indogermanische Forschungen*, *Archiv für Religionswissenschaft*; and many weekly periodicals such as *The Academy*, *Literarisches Centralblatt*, *Philologische Rundschau*, *Revue Critique*. The Library has quite a rich collection of the publications of the learned societies of Europe—*e. g.*, of the Academies of Berlin, Vienna, Leipsic, St. Petersburg, Brussels, Paris, and Rome (Lincei).

The books relating to East Indian and Iranian subjects in the University Library comprise already a good collection of the most important text-editions and works of reference, and additions are constantly being made. In Semitic philology, most of the best works will be found in the Library; care has been taken, especially in Assyriology, to buy all the more important publications. In the Avery Architectural Library, most of the monumental works relating to Eastern art and archæology will be found. Through the generosity of the trustees of Temple Emanuel, the Library now possesses the most complete collection of works in Rabbinical Hebrew to be found in this country. There is also a small collection of Hebrew, Arabic, and Persian MSS., designed for the use of advanced students. The collections of the University Library are supplemented in the most valuable way in all branches of Orientalia by those of the Astor Library, where the privileges of an alcove-reader may be secured by the advanced students. A collection of old Babylonian tablets has been added to the department. These, together with the casts of tablets in the Metropolitan Museum of Art, furnish material for those who wish to devote themselves especially to the study of Babylonian and Assyrian.

The library of the Union Theological Seminary, which is accessible to advanced students at Columbia University, contains all the current theological periodicals—*e. g.*, Stade's *Zeitschrift für Alttestamentliche Wissenschaft*, *Theologische Litteratur-Zeitung*, *The Expositor*.

Orthopædic Surgery

Virgil P. Gibney, M.D	*Clinical Professor*
Royal Whitman, M.D	*Chief of Clinic and Instructor*
Leonard W. Ely, M.D	*Clinical Assistant*
Newton B. Waller, M.D	*Clinical Assistant*
Louis R. Welzmiller, M.D	*Clinical Assistant*
Charlton Wallace, M.D	*Clinical Assistant*

Courses

1—Clinic in orthopædic surgery and diseases of the joints at the Vanderbilt Clinic. 1 hour a week. F. at 12. Professor Gibney

Required, in the fourth year, of candidates for the degree of M.D.

2—Practical instruction at the Vanderbilt Clinic to classes of 20 members each. 12 lessons. Dr. Whitman

Required, in the fourth year, of candidates for the degree of M.D.

3—Operations at the Hospital for Ruptured and Crippled. Tu. 8.30 A.M. Professor Gibney

Optional, in the fourth year, for candidates for the degree of M.D.

Otology

Albert H. Buck, M.D	*Clinical Professor*
William Cowen, M.D	*Chief of Clinic and Instructor*
Robert Lewis, Jr., M.D	*Instructor*
Allen G. Terrell, M.D	*Clinical Assistant*
M. L. Carr, M.D	*Clinical Assistant*
Alfred Michaelis, M.D	*Clinical Assistant*

Courses

1—Practical instruction in the diagnosis of the diseases of the ear at the Vanderbilt Clinic. 8 lessons for each student. Drs. Cowen and Lewis

This instruction is given to the students in sections of ten men each, Mondays and Fridays at 2 P.M.

2—Didactic instruction in pathology and therapeutic methods at the Vanderbilt Clinic. 4 lectures for each student. Professor Buck

This instruction is given to the students in sections of twenty men each, on Wednesdays at 2 P.M.

Pathology

(*Including Pathology, Normal Histology, Bacteriology and Hygiene, Clinical Pathology, and Photomicrography.*)

T. Mitchell Prudden, M.D., LL.D	*Professor of Pathology and Director of the Associated Laboratories*
George C. Freeborn, M.D	*Instructor in Normal Histology*
Philip Hanson Hiss, Jr., Ph.D., M.D	*Instructor in Bacteriology and Hygiene*
Eugene Hodenpyl, M.D	*Instructor in Pathology*
Francis C. Wood, M.D	*Instructor in Clinical Pathology*
John H. Larkin, M.D	*Tutor in Pathology and Curator of the Museum of Pathology*
Edward Leaming, M.D	*Instructor in Photography*
Augustus J. Lartigau, M.D	*Tutor in Pathology and Alonzo Clark Scholar*
Frederick Randolph Bailey, M.D	*Tutor in the Normal and Pathological Histology of the Nervous System and Alumni Association Fellow in Pathology*
Oliver S. Strong, Ph.D	*Assistant in the Normal Histology of the Nervous System*
D. Stuart Dodge Jessup, M.D	*Assistant in Clinical Pathology*
Ernest Nash Wilcox, M.D	*Assistant in Normal Histology*
John S. Thacher, M.D	*Demonstrator in Pathological Anatomy*
George P. Biggs, M.D	*Demonstrator in Pathological Anatomy*
William F. Neumann, M.D	*Assistant in Bacteriology and Hygiene*
Augustus B. Wadsworth, M.D	*Assistant in Bacteriology and Hygiene, and Alumni Association Fellow in Pathology*
Evan M. Evans, M.D	*Assistant in Clinical Pathology*
Philip S. Sabine, M.D	*Assistant in Pathology*
Charles W. Crampton, M.D	*Assistant in Normal Histology*
Charles E. Banker, M.D	*Assistant in Normal Histology*

For the convenience of administration, and for the better association of allied themes, the laboratories of Pathology, Normal Histology, Bacteriology-Hygiene, Clinical Pathology, and Photography are grouped together in the department of Pathology under the direction of the Professor of Pathology.

Courses in Pathology

1—Autopsy technique and pathological anatomy—Systematic instruction in the making of autopsies, with the demonstration of lesions, is given in turn to small sections of the second-year class in preparation for the more extended study of pathology in the third year, either at the College or at the Roosevelt, Presbyterian, New York, St. Luke's, or Bellevue Hospital. Once a week for eight weeks. Drs. Hodenpyl, Thacher, Biggs, and Wood

Required, in the second year, of candidates for the degree of M.D.

2—Practical instruction in general pathology, pathological anatomy and histology, and in the bacteriology of the infectious diseases is given in the east laboratory on the top floor of the north wing of the Medical School. Each student is given about one hundred sections or other permanent preparations, illustrating the more important and common lesions. These he mounts for the microscope, and studies, making notes and sketches. This collection of specimens he retains for future reference.

The systematic course opens with a study of the various phases of degeneration and inflammation; tumors are next studied; then the acute infectious diseases, their lesions and their relationship to micro-organisms. The remainder of the course is devoted to the systematic study of the lesions of the viscera. Each student is furnished with a microscope and the necessary instruments and reagents. He is required to bring for reference in the laboratory the collection of slides prepared and studied in the course in normal histology. Delafield and Prudden's *Handbook of Pathological Anatomy and Histology* is used in this course. 6 hours a week for one half of the academic year. Professor PRUDDEN and Drs. HODENPYL, LARKIN, LARTIGAU, BAILEY, and SABINE

Required, in the third year, of candidates for the degree of M.D.

3—Demonstrations in pathological anatomy—A demonstration is made twice a week to the class in pathology, in sections, of the material which may be newly gathered and from the permanent collection for the illustration of special themes. Drs. HODENPYL and LARKIN

Required, in the third year, of candidates for the degree of M.D.

4—Pathological anatomy and histology, experimental pathology, bacteriology as applied to medicine, and clinical pathology. A limited number of graduates in medicine, or other advanced workers, are admitted to the special laboratories for the pursuit of advanced lines of study in these themes. Professor PRUDDEN, Drs. FREEBORN, HODENPYL, WOOD, HISS, and LARTIGAU

Courses in Normal Histology

1—Practical instruction in general normal histology is given in the east laboratory on the upper floor of the north wing of the Medical School. Sections and other preparations of the simple tissues and the more important thoracic and abdominal viscera of the normal body are given to each student during the course. These he is required to mount and study under the microscope, making notes and drawings of the entire series of specimens. This collection he retains for future reference, especially in the course of practical pathology in the third year (see above). Each student is supplied with a microscope and with a tray of instruments and reagents. Stöhr's *Text-Book of Normal Histology* is used in this course. 6 hours a week for one half of the academic year. Drs. FREEBORN, BAILEY, WILCOX, CRAMPTON, and BANKER

Required, in the first year, of candidates for the degree of M.D. Elective for seniors in Columbia College.

2—Practical instruction similar in character and method to that under 1, but embracing as special themes the central nervous system, the skin, and the organs of special sense. 4 hours a week for one half of the academic year. Drs. FREEBORN, BAILEY, STRONG, WILCOX, CRAMPTON, and BANKER

Required, in the second year, of candidates for the degree of M.D.

3—Practical instruction in microscopic technology is given to a limited number of graduates in medicine, or other qualified workers, in the special laboratories on the fourth floor of the north wing of the College Building. Dr. FREEBORN

Courses in Bacteriology and Hygiene

1—Practical instruction in bacteriology and hygiene is given in the west laboratory on the fifth floor of the north wing of the College building. This course opens with the study of the relationship of bacteria to other micro-organisms. It embraces the methods of staining, examining, and cultivating. The student is taught by practical exercises the methods of separating one species of bacteria from another, and the series of biological characters used in identification of the various forms. The general relationship of certain micro-organisms to disease is considered and illustrated. Finally some of the hygienic aspects of bacteriology are studied by experiments in the sterilization of infectious materials, disinfection of the hands, and by practice in biological air, water, milk, and soil analysis. 6 hours a week for one quarter of the academic year. Drs. HISS, NEUMANN, and WADSWORTH

Required, in the second year, of candidates for the degree of M.D.

2—Special laboratory course in Bacteriology. There is an opportunity each year for a few graduates in medicine, or other qualified workers, to receive a special course in practical bacteriology. The laboratory is abundantly supplied with apparatus for the culture and study of micro-organisms, and has under cultivation a large collection of identified species. In this course the applications of bacteriology to sanitation, to practical medicine, and to various industries are held in view.

The course embraces methods of preparation, staining, microscopic study, and measurement of bacteria; preparation of culture media; study and record of observation of selected typical species; systematic analyses for determination of unknown species; methods of isolation of species; qualitative and quantitative biological examinations of water, soil, air, foods, industrial products, etc.; methods of determining pathogenic properties, disinfection, modes of testing value of germicides. During the last weeks of the course an opportunity is afforded to the student to elect some special division of the subject, sanitary, medical, or industrial, to which he will devote his time.

Text-books: Abbott's *Principles of Bacteriology*, Flügge's *Mikroorganismen*, Migula's *System der Bakterien*.

This course is given but once during the year and requires attendance at the laboratory for the entire afternoon in January, February, and March. Drs. HISS and WADSWORTH

Minor for the degree of A.M. or Ph.D.

3—Laboratory course—As under Course 2, with additional study and determination of known species of bacteria: special study of the chemical products formed in the growth of bacteria; practical work in photomicrography and the pursuit of some selected theme for original investigation. Professor PRUDDEN and Drs. HISS and LEAMING

Major for the degree of A.M. or Ph.D.

Courses in Clinical Pathology

1—Practical instruction in clinical pathology is given in the west laboratory on the fifth floor of the north wing of the College building. This course embraces the practical study of blood, urine, sputum, stomach contents, fæces, and milk, and instruction in such methods of clinical diagnosis as involve the usual microscopical, bacterial, and chemical analyses. 6 hours a week for one quarter of the academic year. Drs. Wood, Evans, and Jessup

Required, in the fourth year, of candidates for the degree of M.D.

2—Special laboratory course in clinical microscopy. Opportunity is offered each year to a limited number of qualified workers for advanced study on selected themes in the special laboratory for clinical pathology. Dr. Wood

Photography, Photomicrography, and Skiagraphy

1—Practical instruction is given to a limited number of men in the photographic laboratories of the College, in the technique of photography, photomicrography, and skiagraphy for scientific purposes. The time necessary for the acquirement of this technique varies with the facility of the student and the hours devoted to the theme, and is subject to special arrangement.

The facilities of these laboratories may be drawn upon for purposes of record and illustration by instructors in various departments of the College and by others. Dr. Leaming

Research

Research in pathology and bacteriology may be pursued in the laboratories of this department by a limited number of graduate students or practitioners of medicine or other advanced workers, under the direction of the Professor. To such men the large collection of pathological specimens preserved for microscopical study and the collection of bacterial cultures belonging to this department are accessible. Professor Prudden

Fellowships

For the fellowships open to persons wishing to do special work under the Professor of Pathology, see page 46.

Museum

The Museum of Pathology is made use of in the work of this department, both for the instruction of medical students, and as a place of deposit for specimens showing new or rare forms of lesions.

Equipment

The department of Pathology occupied in the autumn of 1895 the large additional space which the new college buildings furnish. The large classroom on the upper floor of the north wing is used, as formerly, for the class in normal histology and in pathology. The fourth floor is devoted to the pathological museum and to a large preparation laboratory, a workshop, cold storage, and the like. The new space is devoted to a general laboratory and to private rooms for instructors and advanced workers in pathology, to undergraduate and to research work in bacteriology and hygiene and clinical pathology, and to a departmental library.

The entire space, new and old, is amply lighted, fully furnished, and equipped with such new apparatus as the rapidly growing sciences of pathology, bacteriology, and closely allied themes require.

Philosophy, Psychology, Anthropology, and Education

Nicholas Murray Butler, Ph.D., LL.D	*Professor*
James McKeen Cattell, Ph.D	*Professor*
James Hervey Hyslop, Ph.D	*Professor*
Moses Allen Starr, M.D., LL.D	*Professor*
Franz Boas, Ph.D	*Professor*
Herbert Gardiner Lord, A.M	*Professor*
Livingston Farrand, A.M., M.D	*Instructor*
Charles Augustus Strong, A.B	*Lecturer*
Adam Leroy Jones, Ph.D	*Assistant*
Harlan Updegraff, A.M	*Assistant*
William Harper Davis, A.B	*Assistant*
James Earl Russell, Ph.D	*Professor in Teachers College*
Frank Morton McMurry, Ph.D	*Professor in Teachers College*
Paul Monroe, Ph.D	*Professor in Teachers College*
Samuel Train Dutton, Ph.D	*Professor in Teachers College*
Edward Lee Thorndike, Ph.D	*Instructor in Teachers College*

The courses of this Division (comprising the Department of Philosophy and Education, and that of Psychology and Anthropology) fall into four groups, those on Philosophy, those on Psychology, those on Anthropology, and those on Education. In each group are courses intended primarily for undergraduates. These are best described as introductory courses, and their aim is to furnish a general acquaintance with the main subdivisions of philosophy, psychology, and education as a whole. The courses known as Philosophy 1, 2, and 9, Psychology A, 1, 2, 3, and 8, Anthropology 1 and 2, and Education 1, 2, and 3 are of this character. By the use of the historical and comparative methods of study and exposition, students in these courses are introduced to a general survey of their respective subjects. While serving as introductory courses for students proposing to specialize in philosophy, psychology, anthropology, or education, these courses are particularly recommended to those students of law, medicine, political science, natural science, or theology who wish to acquire some knowledge of philosophy, psychology, anthropology, and education as part of a liberal education or as supplemental to their own special lines of study. College students wishing to follow these courses are recommended to take Psychology A in the sophomore year, Psychology 1 in the junior year, and Philosophy 1, Education 2, and a course in Psychology and in Anthropology in the senior year.

The remaining courses in each group are intended primarily for advanced students. These courses may be taken only by those who have had the introductory courses, or their equivalent, at some other university. The advanced courses are planned with reference to each other, and a student remaining three years in the Division may pursue courses that cover the entire range of modern philosophy, psychology, anthropology, and education.

Juniors in Columbia College and in Barnard College may elect Education 3, given at Teachers College, and count the same as part of the work required for the degree of Bachelor of Arts. Seniors may take any of the Education courses that are open to them, and count the same towards the degree of Bachelor of Arts, subject to the usual restriction that not more than six hours per week of elective work may be taken in any one subject.

A select number of advanced students, usually candidates for university degrees, are admitted to the seminars organized for training in research.

All courses offered by this Division, except Philosophy A, Psychology 7, and Anthropology 3, are open to women on the same terms as to men.

All courses, except Psychology A and 7, Anthropology 3, the several seminars and research work, are open to auditors on the usual terms.

Summary

The following courses count towards the degree of A.B. They are open to seniors only (in certain cases only to specially qualified seniors) except Education 3, and Psychology 7 and 8, which are open also to juniors.

4 points:	Education 36
3 points:	Philosophy 1
	Psychology 8
	Education 2
2 points:	Philosophy 6, 7, 8,* 11, 12, 13, 14
	Psychology 1, 2, 6, 11*
	Anthropology 1, 2, 4, 5
	Education 2, 4, 6, 8, 9, 11, 12, 13, 16, 18, 19, 21, 22, 23, 25, 26, 32, 34, 35, 38, 39, 40
1½ points:	Philosophy 2, 9
	Psychology A
	Education 3, 5, 14, 20, 24, 27, 37
1 point:	Psychology 3,* 9
	Education 41

The following courses may be counted toward the degrees of A.M. and Ph.D.:

Philosophy 1, 3, 4, 5, 6, 7, 8, 11, 12, 13, 14, Seminar
Psychology 2, 3, 4, 5, 6, 7, 11, 13, 14, 15
Anthropology 1, 2, 3, 4, 5, 6
Education 1, 2, 4, 5, 6, 8, 12, 13, 16, 17, 18, 19, 21, 27, 29, 30, 31, 33

For special information as to what credit toward the fulfilment of the requirements for major or minor subjects will be given on the completion of the course, consult the Announcement of the Division of Philosophy and Psychology for 1901–02.

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*May count for more points under certain circumstances.

Courses in Philosophy

1—Historical and critical introduction to philosophy—Weber's *History of Philosophy;* Paulsen's *Introduction to Philosophy* — Lectures, conferences, essays, and private reading. 3 hours. Professor BUTLER, assisted by Dr. JONES

Pre-requisite: Psychology A. Philosophy 2 and 9 also recommended.
This course serves as a general introduction to the study of philosophy, and is pre-requisite to Courses 3, 4, and 6.

2—Ethics: general course—Lectures, essays, and discussions. 3 hours 2d half-year. Professor LORD

Pre-requisite: Psychology A.
This course is pre-requisite to Course 5.

3—The philosophy of Kant and his successors; Fichte, Schelling, Hegel, Herbart, and Schopenhauer—Lectures, essays, and private reading. 2 hours. Professor BUTLER

Not given in 1900–01.
Pre-requisites: Psychology A, Philosophy 1, 2, and 9. Alternates with Course 4.

4—British philosophy from Locke to Herbert Spencer; history and criticism of the association psychology and the philosophy of evolution—Locke's *Essay on the Human Understanding;* Berkeley's *Principles of Human Knowledge;* Hume's *Treatise of Human Nature;* the writings of Hartley, Brown, the Mills, and Bain; Herbert Spencer's *First Principles*—Lectures, essays, and private reading. 2 hours. Professor BUTLER

Not given in 1900–01. Alternates with Course 3.
Pre-requisites: Psychology A, Philosophy 1 2 and 9.

5—Practical ethics—Lectures, private reading, observation, essays, and discussions. 3 hours. Professor HYSLOP

Pre-requisites: Psychology A, Philosophy 1, 2, and 9.

6—Epistemology—Lectures, discussions, and essays. 2 hours. Professor HYSLOP

Pre-requisites: Psychology A, Philosophy 1, 2, and 9.

7—History of ethics. 2 hours. Dr. JONES.

Pre-requisites: Psychology A, Philosophy 1, 2, and 9.
Not given in 1900–01.

8—Principles and problems of æsthetics—Lectures, essays, and discussions. 2 hours. Dr. JONES

Pre-requisites: Psychology A, Philosophy 1, 2, and 9.

9—Logic and scientific method. 3 hours, second half-year only. Professor LORD

Pre-requisite: Psychology A.

10—Journal Club—Reports and discussions on contemporary literature. 1 hour. Dr. JONES

11—Studies in European philosophy from the Renaissance to the Enlightenment. 2 hours. Dr. JONES

Pre-requisites: Psychology A, Philosophy 1, 2, and 9.

12—Practicum —Selected topics in modern philosophy. 2 hours. Professor Butler

Pre-requisites: Psychology A, Philosophy 1, 2, and 9.

13—Metaphysics. 2 hours. Professor Hyslop

Given in 1900–01. Alternates with Course 6.
Pre-requisites: Psychology A, Philosophy 1, 2, and 9.

14—Practicum—Philosophy of Herbert Spencer. 2 hours. Professor Hyslop

Pre-requisites: Psychology A, Philosophy 1, 2, and 9.

Seminar—Philosophy of Aristotle. One session weekly. Professor Hyslop

Admission by consent of instructor only.

Courses at the Union Theological Seminary

Philosophy of Religion

Philosophy of Religion, A. 2 hours weekly, first half-year. Professor Knox

Philosophy of Religion, B. 2 hours weekly, second half year. Professor Knox

Philosophy of Religion, C—Christianity the absolute religion. 2 hours weekly, second half-year. Professor Knox

Theism: its relation to modern science and idealistic philosophy. 2 hours weekly, second half-year. Professor Knox

Ethics

History of Christian ethics, with special reference to the scholastic development. 2 hours weekly, first half-year. Professor Thomas C. Hall

Outline of Christian ethics—2 hours weekly, second half-year. Professor Thomas C. Hall

Courses in Psychology

A—Elements of psychology—James's *Principles of Psychology*—Discussions, practical exercises, and recitations. 3 hours, first half-year, given in 4 sections. Professor Lord

A parallel course is given by Dr. Thorndike at Teachers College.

1—Introduction to psychology. 2 hours, lectures and demonstrations. Professors Butler, Cattell, Boas, Starr, and Hyslop, Drs. Farrand and Thorndike, and Mr. Strong

The object of this course is to give a summary view of the subject-matter and methods of modern psychology. The ground covered is as follows:

A. Prolegomena to psychology, including a sketch of the history of psychology. Six lectures. Professor Butler
B. Physiological psychology. Eight lectures. Dr. Farrand
C. Experimental psychology. Eight lectures. Professor Cattell
D. Genetic psychology. Seven lectures. Dr. Thorndike
E. Comparative psychology. Seven lectures. Dr. Boas
F. Pathological psychology. Three lectures. Dr. Starr
G. General psychology. Eight lectures. Professor Hyslop
H. Philosophy of mind. Six lectures. Mr. Strong

Requisite: Psychology A, previously or simultaneously.

2—Experimental psychology, introductory course—Lectures, themes, and demonstrations. 2 hours. Professor CATTELL

Pre-requisite: Psychology A.

3—Experimental psychology—Laboratory work. 2 or 4 hours, counting as a 1- or 2-hour course. Professor CATTELL, assisted by Mr. DAVIS

Pre-requisites: Psychology A and Course 2, simultaneously.

4—Problems in experimental psychology—Lectures, laboratory work, and reports. 2 hours. Professor CATTELL

Open only to graduate students with previous training.

5—Research work in experimental psychology. Professor CATTELL, assisted by Mr. DAVIS

Open only to graduate students with previous training.

11—Genetic psychology, advanced course. 2 hours. Dr. THORNDIKE

13—Research work in genetic and comparative psychology. Dr. THORNDIKE

6—Analytic psychology, advanced course—Lectures and private reading. 2 hours. Mr. STRONG

14—Philosophy of mind. 2 hours. Mr. STRONG

Pre-requisites: Psychology A and 1.

15—Research work in analytical psychology and the philosophy of mind. Mr. STRONG

Pre-requisites: Psychology 6 and 14.

7—Diseases of the mind and nervous system—Lectures and demonstrations. 1 hour. Professor STARR

8—Physiological psychology, general course—Lectures, demonstrations, and laboratory work. 3 hours. Dr. FARRAND

Requisite: Psychology A, previously or simultaneously.
This course is especially recommended to intending students of medicine.

9—Abnormal and pathological psychology—Lectures and discussions. 1 hour. Dr. FARRAND

To be taken in connection with Course 1 or 3.

12—Research work in physiological and abnormal psychology. Dr. FARRAND

Courses in Anthropology

1—Anthropology, general introductory course—Lectures, essays, and discussions. 2 hours. First half-year: physical anthropology and linguistics. Professor BOAS. Second half-year: ethnology. Dr. FARRAND

2—The statistical study of variation, introductory course—Lectures, essays, and discussions. 2 hours. Professor BOAS

3—Ethnology—Primitive culture—Lectures, papers, and discussions. 2 hours. Dr. FARRAND

Pre-requisite: Course 1 or equivalent.

4—Physical anthropology—Lectures and laboratory work. 2 hours. Professor BOAS

5—North American languages—Lectures and discussions. 2 hours. Professor BOAS

6—Anthropological research. Professor BOAS and Dr. FARRAND

Courses in Education

The courses in education, except Course 2, are given primarily under the Faculty of Teachers College.

NOTE.—Education 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, and 25 are required of candidates for the Teachers College diploma in the several subjects to which they relate. A total of nine hours' credit for courses in subject-matter, selected with the approval of the Dean of Teachers College, must also be secured in each subject offered for the diploma in secondary teaching.

History and Philosophy of Education

1—History of education—Lectures, essays, and discussions. 2 (or 3) hours. Two sections. Professor MONROE

A. Open to graduates and to fourth-year students who have had the equivalent of History 1.

B. Open to special and departmental students and to regular students who have not had History 1.

Required, in the last year of the course, of all undergraduates who are candidates for a diploma.

2—Principles of education—Lectures, essays, required reading, and discussions. 2 or 3 hours. Professor BUTLER, assisted by Mr. UPDEGRAFF

Pre-requisite: Psychology A. Philosophy 1, 2, and 9 recommended.

Required of all fourth-year students who are candidates for a diploma in secondary or elementary teaching.

8—Secondary education—Lectures, discussions, and reports. 2 hours. Professors MONROE and RUSSELL

28—Educational classics—Lectures, required reading, and discussions. 2 hours. Professor MONROE

Pre-requisite: Education 1, or its equivalent.
Not given in 1900–01.

29—Seminar—Historic development of the curriculum of the secondary school—Investigation, research, and discussions. 1 hour. Professor MONROE

Educational Administration

6—School administration—Lectures, essays, and discussions. 2 hours. Professor DUTTON

30—Seminar—Administration of public education in the United States—Investigation and research. 1 hour. Professor DUTTON

7—National educational systems—Lectures, supplementary reading, and reports. 2 hours. Professor RUSSELL

Given in 1901–02 and in alternate years thereafter.

31—Practicum—The professional training of teachers. 1 hour. Professor RUSSELL

Genetic Psychology and School Hygiene

9—Child study—Observation, experiments, private reading, and conferences. 2 hours. Dr. THORNDIKE

Requisites: Psychology A and Education 3, previously or simultaneously.
Open to qualified students who receive special permission from the instructor.

27—School hygiene and child study. 3 hours, second half-year. Dr. THORNDIKE

Theory and Practice of Teaching in Secondary Schools

11—Art and drawing—Lectures, conferences, observation, and practical work. 2 (3) hours. Professor CHURCHILL and Mrs. CHAMBERS

12—Biology—Lectures and discussions. One conference and 2 or more hours of practical work, counting as a 2-hour course. Professor LLOYD and Mr. BIGELOW

13—English—Lectures, reading, written work, observation, and practice teaching. One conference and 2 or more hours of practical work, counting as a 2-hour course. Professor BAKER

French 17—See Statement of Department of Romance Languages and Literatures.

16—Geography and geology—Lectures, discussions, and practical work. One conference and 2 or more hours of practical work, counting as a 2-hour course. Professor DODGE

17—German—1 hour lecture, 2 or more hours of practical work. Mr. BAGSTER-COLLINS

18—Greek—1 hour lecture, and 2 or more conferences counting as 2 hours. Professor LODGE

19—History—Lectures, discussions, observations, and practice teaching. One conference and 2 or more hours of practical work, counting as a 2-hour course. Professor CASTLE

21—Latin—One conference and 2 or more hours of practical work, counting as a 2-hour course. Professor LODGE

22—Manual training—Discussions, essays, and supplementary reading. 2 hours. Professor RICHARDS

32—Organization and supervision of manual training—Discussions, essays, and observation. 2 hours. Professor RICHARDS

23—Mathematics—Lectures, discussions, and practical work. One conference and 2 or more hours of practical work, counting as a 2-hour course. Professor BIKLÉ

25—Physical science—First half-year, chemistry; second half-year, physics. Laboratory exercises, observation, and preparation for practice teaching. One conference and 2 or more hours practical work, counting as a 2-hour course. Professor WOODHULL

Theory and Practice of Teaching in Kindergarten and Elementary Schools

3—Applications of psychology in teaching. Discussions, critical study of texts, and collateral reading. 3 hours, second half-year. Two sections. Professor MCMURRY

Pre-requisite: Psychology A, or its equivalent.

A. For students who are candidates for the diploma in domestic art, domestic science, fine arts, or manual training.

B. For students who are candidates for the diploma in secondary, elementary, or kindergarten teaching.

4—Critic work and practice teaching
(*a*) Weekly conferences (2 hours) following observation of recitations, combined with (*b*) practice in teaching under supervision.
Professor McMurry and Miss Wohlfarth

Pre-requisite: Education 3.

5—General method—Critical study of texts, discussions, and supplementary reading. 3 hours, first half-year. Professor McMurry

Pre-requisite: Education 3.

10—Primary teaching—Observation, discussion, and lectures. 2 hours. Professor McMurry

Given in 1901-02, and in alternate years thereafter.

33—Seminar—The curriculum of the elementary school—Investigation, research, and discussion. 1 session. Professor McMurry, in connection with heads of departments

34—Kindergarten principles—Discussions, collateral reading, and essays. 2 hours. Professor Runyan

35—Kindergarten and primary teaching—Lectures, written reports, and observation in the kindergarten. 2 hours. Miss O'Grady

36—Kindergarten method and practice—(*a*) Lectures, discussions, and preparation of lesson-plans. 2 hours. Miss O'Grady. (*b*) Observation and practice in teaching. 4 (8) hours. Professor Runyan, Miss O'Grady, Miss Blake

11—Art and drawing—Lectures, conferences, observation, and practical work. 2 (3) hours. Professor Churchill and Mrs. Chambers

26—Drawing and manual training in the primary grades. Conferences, preparation of lessons, observation, and practical work. 2 hours. Professors Churchill, Richards, and Woolman

14—English in elementary schools—Lectures, recitations, and private reading. 3 hours, first half-year. Professor Baker

37—Geography in elementary schools—Lectures, discussions, and preparation for practice teaching. 3 hours, first half-year. Professor Dodge and Miss Kirchwey

20—History in elementary schools—Lectures, conferences, reference work, observation, and practice teaching. 3 hours, second half-year. Professor Castle

24—Mathematics in elementary schools—Conferences, observation, and discussion. 3 hours, second half-year. Professor Biklé

41—Nature study in elementary schools—Lectures and discussions. 1 hour. Professor Lloyd, Mr. Bigelow, and Miss Carss

38—Domestic art, introductory course—Lectures, conferences, and practical work. 2 hours. Professor Woolman

39—Domestic art, advanced course—Lectures, conferences, and practical work. 2 hours. Professor Woolman

40—Domestic science—Lectures, conferences, and practical work. 2 hours. Professor Kinne

Equipment

The equipment of the Division is very complete and constantly being increased. It includes library facilities, laboratories of experimental and physiological psychology, a school of observation and practice, and the beginnings of an educational museum.

Library Facilities—The library facilities of Columbia University and of the city of New York, for students of Philosophy, Psychology, Anthropology, and Education, are unusually good. The University Library, open daily (except Sunday) for fifteen hours, contains more than 285,000 bound volumes and an equal number of pamphlets, and is being added to at the rate of more than 20,000 volumes annually. Any book needed by an advanced student can usually be bought at once. The collection of books on the history of philosophy is very large, that on Kant and his philosophy being especially complete. Over 800 periodicals are regularly received at the University Library, and among them will be found every journal of importance, American or foreign, dealing with philosophy, physiology, ethics, or education. Duplicates of the more important books and journals are placed in the Psychological Laboratory and may be used by students at their convenience. Students of Psychology will also find much of value in the Library of the Academy of Medicine, 15 West 43d Street, which is open to students free of charge. Students of Anthropology may avail themselves of the extensive collections of the American Museum of Natural History. The Astor and Lenox Libraries are also available for students, when introduced by one of the instructors, on especially favorable terms.

Students of Education have also at their disposal the Bryson Library at Teachers College. This collection now numbers more than 10,000 volumes, and is constantly being enlarged. The main purpose of the library is to afford to special students of Education opportunities for study and research. The library, therefore, consists chiefly of works on education in English, French, and German, including books on philosophy, psychology, anthropology, history of education, school organization, and methods of teaching. In addition to these professional works the library also contains a collection of books on history, literature, biography, geography, travels, art, science, and technology, adapted to the needs of pupils in elementary and secondary schools, with which students of Education and teachers should be familiar.

THE PSYCHOLOGICAL LABORATORY—The new laboratory occupies the eastern half of the second floor of Schermerhorn Hall. This building has been erected with special reference to study and research in the natural sciences, at a cost of over $400,000, and is complete in every respect. The part occupied by the psychological laboratory was planned for this purpose after a careful study of psychological, physical, and physiological laboratories. It includes a large lecture-room fitted up for lectures, demonstrations, and experimental work by students in the general courses, a seminar-room, with a department library, and eight other rooms. These include a room for work in anthropology and physiological psychology, a room for a workshop and preparations, an apparatus cabinet, and five research laboratories. Two of these are dark rooms, especially constructed to exclude sound as well as light, 20 feet high and well ventilated. The laboratory has light from the north and south, is supplied in all rooms with electric current of both high and low potential, and is in all respects equipped both for instruction and research.

The collection of apparatus has been gradually secured at a cost of over $6000. It includes: (1) Outfit for making and repairing apparatus, measuring instruments, electric motors, etc. (2) The outfit of an anthropometric laboratory with which freshmen in the College and others are annually tested. (3) The apparatus, preparations, charts, etc., needed for complete courses in experimental and physiological psychology. (4) The apparatus that has been used or is being used in special researches. A large part of the apparatus has been made especially for the laboratory. It includes two chronographs, one of high speed for measuring very short time and one of low speed for continuous records, two electric chronoscopes with special improvements, a wheel chronoscope, a gravity chronoscope, and a pendulum chronoscope made for special researches, apparatus for studying the time, extent, and force of movement and the dynamogenic effects of sensations and emotions, instruments for the study of the sense of time and the perception of space, an Ellis harmonium and Koenig acoustical apparatus, a spectro-photometer, special color-mixers, Auzoux's models, and many other instruments, models, preparations, charts, etc., used in the courses of instruction and for research work. The outfit for the courses of instruction is now in large measure secured and the annual appropriations can be used chiefly for apparatus needed in special researches. This can be done to special advantage as a skilled instrument-maker is employed continuously in the workshop of the laboratory.

The courses in the zoölogical sciences are given in the same building, and the building for instruction in physics is adjoining. The library and the rooms occupied by the department of Philosophy are near by.

The collections and apparatus in the departments of Zoölogy, Physics, and Physiology, as also of the American Museum of Natural History, are unusually complete and may be used by students of Psychology and Anthropology. There is a thorough equipment of ethnological and anthropological charts and maps, with skulls, casts, and masks of lower races, and material and instruments for work in anthropometry.

The anthropological section of the University Library is being rapidly enlarged, the journals in the subject are on file in the reading-room, and special efforts have been made to obtain back numbers of all the leading periodicals, the files of which are now practically complete.

HORACE MANN SCHOOL—For students of Education there is afforded an exceptional opportunity for observation and practice in teaching. This is given in the school of observation and practice known as the Horace Mann School, which is maintained by Teachers College for this purpose. In this school every phase of school work, including the high school as well as the kindergarten and the elementary school, is to be found in operation. In all these grades there are being worked out, from year to year, in the light of educational theory and of practical experience, the typical educational problems of the day, and the students in Education are made sharers with the Faculty of Teachers College both in the processes and in the results of these investigations. Opportunities for practice in teaching and supervision are afforded to qualified students.

Physics

Ogden N. Rood, A.M.	*Professor*
William Hallock, Ph.D.	*Adjunct Professor*
Reginald Gordon, A.B.	*Instructor*
Herschel C. Parker, Ph.B.	*Tutor*
Charles C. Trowbridge, B.S.	*Tutor*
Frank L. Tufts, Ph.D.	*Tutor*
William S. Day, Ph.D.	*Tutor*
William B. Johnstone, C.E.	*Assistant*
Homer M. Derr, A.B.	*Assistant*
William W. Comstock, A.B.	*Assistant*
George Braxton Pegram, A.B.	*Assistant*
Bergen Davis, A.M.	*Assistant*

Courses

1—General physics. Light and heat (first half-year). Sound and electricity (second half-year). Lectures and recitations, 3 hours; laboratory, 2 hours. Professor Rood and Mr. Gordon

Laboratory work not required of first-year students in courses under the Faculty of Applied Science, with the exception of those in the course of Mechanical Engineering. Open to students in the College.

2—Magnetism and electricity (first half-year). Sound (second half-year). 2 hours lectures; 2 or 6 hours laboratory work. Text-books: Atkinson's Ganot, and Stewart and Gee's *Physics*. Professor Rood

Open to candidates for the degrees of A.M. and Ph.D.

3—Units and measurements (first half-year). Lectures on the absolute system of mechanical and electrical units; electrical measurements; the derivation and use of the Watt, Joule, Ampère, Volt, and Ohm.

Exact electrical measurements (second half-year). Lectures on the Farad, Coulomb, and units of electric and magnetic induction.

Electrical and magnetic measurements in the laboratory. 2 hours lectures; 2 to 8 hours laboratory. Text-books: Everett's *C. G. S. System of Units*, Glazebrook and Shaw's *Physics*, Kohlrausch's *Physical Measurements*, Wiedemann and Ebert's *Physics*, and A. Witz's *Physics*. Professor Hallock

Required of second-year students in the Electrical Engineering course. Second-year students in all courses under the Faculty of Applied Science, except that of Architecture, are required to attend the lectures of the first half-year, and to take two hours of laboratory work during the whole year. Open to candidates for the degrees of A.M. and Ph.D. Pre-requisite: Course 1 or 2 with two hours laboratory work.

4—Light (first half-year). Lectures on the velocity, reflection, refraction, and dispersion of light. Achromatism, optical instruments, the eye, and Young's theory of color. Physical measurements in the laboratory.

Heat (second half-year). Lectures on the expansion of solids, liquids, and gases; on conduction, specific heat, tension of vapors, and radiant heat. Physical measurements in the laboratory. 3 hours lectures; 2 or 4 hours laboratory work. Text-books: Stewart and Gee, and Glazebrook and Shaw's *Physics*. Professor Rood

Open to candidates for the degrees of A.M. and Ph.D. Pre-requisite or parallel: Course 2.

5—Modes of designing and constructing optical apparatus (first half-year). 1 hour. Professor HALLOCK

Open to second-year students under the Faculty of Applied Science, and to university students. Pre-requisite or parallel: Course 2, 3, or 4.

6—Elementary meteorology (first half-year). The steam-engine (second half-year). 1 hour. Mr. GORDON

Pre-requisite or parallel: Course 2 or 4.

7—Electrical manipulation (first half-year). 1 hour. Theoretical comparison of electrical methods (second half-year). 2 hours. Mr. PARKER

Open to candidates for the degree of Electrical Engineer, and to university students. Pre-requisite or parallel: Course 3 or 4.

38—Experimental methods of studying atmospheric electricity (second half-year). 1 hour. Dr. TUFTS

Pre-requisite or parallel: Course 6.

8—Undulatory theory of light (second half-year). 2 hours. Professor HALLOCK

Open to university students. Pre-requisite or parallel: Course 4 of seven hours.

31—General physics (shorter course for students in medicine). 3 hours lectures and 3 hours laboratory work, for a half-year. Professor HALLOCK and Dr. TUFTS

This course is delivered twice every year, and is required of candidates for the degree of M.D. in their first year.

Laboratory Courses

9—Electromotive force of standard and constant cells
41—Comparison of electrical standards of resistance
32—Absorption of sound by various materials
12—Colorimetry, and absorption spectra
13—Photometry
14—Calibration of Wheatstone bridges
33—Factors of capillarity
16—Determination of index of refraction by special methods
35—Study of the variations of the magnetic field
18—Viscosity of solids
34—Determinations of permeability and hysteresis of iron
20—Advanced course in spectrometry
21—Ballistic galvanometer work, inductance
22—Calorimetry
23—Radiant heat
24—Interference of light
25—Polarized light
26—Acoustic determinations
36—Precise determinations with the potentiometer
28—Measurement of low resistance
29—Electrical insulation
30—The use of the microscope
40—Absolute measurements of current and electromotive force

37—Spectral photography
Professors Rood and Hallock, Dr. Tufts, and Mr. Parker

Open to seniors who have taken Courses 2 and 4.

A laboratory course of five hours per week will be accepted as a minor for the degree of Master of Arts.

Original research, conducted under the direction of Professors Rood and Hallock, is open to properly qualified persons, including candidates for the degree of Ph.D., in their last year, whose major subject is Physics.

Equipment

The laboratories and lecture-rooms of the department of Physics occupy four floors of Fayerweather on the eastern side of the University grounds. The building is supplied with all ordinary conveniences, including electricity for power and light, compressed air, and steam. There is a vertical shaft 95 feet high, with gas, electric, and water outlets every ten feet. In the sub-basement a constant-temperature room is placed twelve feet below the surface of the ground. The meteorological instruments presented to the University by President Low are set up with the recording portions in the small library on the second floor, and are connected by an electric cable with the vanes, anemometer, and rain gauge, which, with allied pieces of apparatus, are placed upon an observation platform located on the roof of the building. There are two lecture-rooms, a library, and apparatus-room, and a small laboratory on the first floor, while the remaining three floors devoted to the department are occupied by laboratories of different kinds.

The general elementary laboratory includes in its equipment: three linear and three circular dividing engines of different designs; a Geneva Society comparator, and dividing engine; a Grunow cathetometer, spherometers, optical levers, calipers, and micrometers of many kinds, eight balances with weights. Specific-gravity apparatus, hydrometers, aërometers, Becker and Jolly balances, standard mercurial barometers, aneroid and Mariott barometers, Kater's and Borda's pendulums, and apparatus for studying elasticity are provided; also monochords, Kundt's dust-figure apparatus, and sets of organ pipes and tuning-forks for the study of sound; thermometers and apparatus for their calibration, zero and boiling points, are supplied; also there is apparatus for determination of coefficients of expansion, for latent and specific heat, and for calorimetry.

The optical rooms are furnished with eight spectrometers of different designs, seven spectroscopes, small telescopes, opera-glasses, microscopes, sets of lenses, prisms, and gratings, goniometers, a sextant, optical benches, photometers, saccharimeters, total reflectometers, and apparatus for colorimetry, polarized light, and spectroscopy.

In the rooms devoted to electricity are eleven galvanometers of various patterns, high and low resistance, ballistic and dampened; electrometers, magnetometers, rheostats and bridges of all types; condensers, batteries, keys, arc and incandescent lamps, ammeters and volt meters, and four standard ohms.

The workshop is furnished with a lathe, planer, grinding head, vises, carpenters' and machinists' benches, and tools for work in metal, wood, and glass.

Advanced students are taught and encouraged to repair, alter, and construct apparatus needed for their special work.

Physiological Chemistry

Russell H. Chittenden, Ph.D. .... *Director and Lecturer*
William J. Gies, M.S., Ph.D. .... *Instructor*
Alfred N. Richards, M.A. .... *Assistant*
William D. Cutter, A.B. .... *Assistant*

Preliminary Statement

No previous work in physiological chemistry is necessary before a student may undertake graduate study in this department. All who have passed courses in elementary chemistry, physiology, and biology may commence work in physiological chemistry for the degree of A.M. or of Ph.D. Work in other subjects cannot be substituted for these because of their fundamental importance as starting points in the study of advanced physiological chemistry. Courses in other departments, or their equivalents, that are necessary in the preparation for preliminary Course 1, and for subsequent work for the A.M. or the Ph.D. degree are: (*a*) either Course 1 or 2 in general inorganic chemistry and Course 20 in elementary organic chemistry; (*b*) one year's work in physiology, Course 3; (*c*) Course 2 in elementary biology. Candidates for the degree of A.M. may take Course 1 during the first half-year, and Course 2 during the second half-year. Candidates for the degree of Ph.D. may take each of the three courses in its natural order. Course 1 or its equivalent is the necessary preliminary to advanced work in physiological chemistry.

Courses

1—General physiological chemistry — This course is given twice every year and consists of one lecture, one combined conference and recitation, and three laboratory exercises of two hours each per week throughout the half-year. The weekly lecture is given to the entire class. The conferences and recitations, however, as also the laboratory work, are given to one half of the class at a time so as to afford special opportunity for personal instruction and oversight.

It is the aim of the course to present to the student, as thoroughly as the time will allow, the chemical side of physiology—and largely from a scientific standpoint, without, however, ignoring those practical questions which have special significance. After a preliminary study of proteid substances, carbohydrates, and fats has been made, attention is directed to the composition of the various tissues and secretions, and stress laid on the physiological properties and significance of the characteristic constituents. The chemico-physiological facts and problems of digestion, secretion, excretion, and nutrition in general are likewise carefully investigated, the course concluding with an examination of urine, both in health and disease. Lecture, 1 hour. Professor Chittenden. Combined conference and recitation, 1 hour. Dr. Gies. Laboratory exercises, 6 hours. Dr. Gies and Messrs. Richards and Cutter

Required of all candidates for the degree of M.D. in their second year. Open (1) to first-year students of medicine who are exempt from chemistry and physics, and who have the requisite knowledge of elementary physiology; (2) as an elective to qualified seniors in the College who have had sufficient chemistry, physiology, and biology; (3) to properly qualified candidates for the degree of A.M. or of Ph.D.

A partial minor or major for the degree of A.M. or Ph.D.

2—Laboratory course in advanced physiological chemistry—This course is a continuation of Course 1, but gives more detailed instruction in the various subjects belonging to physiological chemistry than the limited time for Course 1 will allow. 6 hours. Dr. GIES and Mr. CUTTER

Pre-requisite: Course 1 or its equivalent.
A partial minor or major for the degree of A.M. or Ph.D.

3—Laboratory course in special physiological chemistry—This course is arranged for those students who wish to make a very thorough study of the science. It particularly affords opportunity for experimental observations of the more intricate phases of chemical physiology and terminates in original investigation under personal direction. 12 hours. Dr. GIES and Mr. RICHARDS

Pre-requisites: Courses 1 and 2 or their equivalents.
A partial major or minor for the degree of Ph.D.

Research

The laboratories are open to advanced workers, and for original research under the direction of the officers of the department.

Equipment

The department of Physiological Chemistry is located at the College of Physicians and Surgeons and possesses four well-equipped laboratories. One large room is arranged for the accommodation of 72 workers at one time. Three smaller rooms are specially fitted up for original investigation by advanced students. The various laboratories are well supplied with all necessary chemical apparatus, balances, steam-baths, constant level water-baths, thermostats for artificial digestions, microscopes for micro-chemical work, spectroscopes, polariscope, centrifugal apparatus, and the like; in fact, the department is well equipped with all needful apparatus for routine and research work in physiological chemistry.

Physiology

JOHN GREEN CURTIS, M.D.	*Professor*
FREDERIC SCHILLER LEE, Ph.D.	*Adjunct Professor and Demonstrator*
ROBERT ALLYN BUDINGTON, A.M.	*Assistant Demonstrator*
NATHAN WILLIAMS GREEN, M.D.	*Assistant Demonstrator*

None of the courses in this department is open to women.

Preliminary Statement

The work in this department is intended primarily for graduates and for candidates for the degree of M.D. Of the four courses offered none is open to undergraduates except in so far as Course 3 is required of seniors in Columbia College who are taking their first year in medicine.

A knowledge of general biology, such as is offered in the department of Zoölogy, Course 2, or of the first year's work in medicine, is a pre-requisite to the undertaking of work in physiology by a candidate for the degree of A.M. or Ph.D. No previous work in physiology is required of such a candidate.

Candidates for the degree of A.M. may take Courses 1 and 2, or Courses 3 and 4, or Course 4 with a sufficient amount of prescribed reading, the particular combination of courses selected depending largely on the student's previous training.

Candidates for the degree of Ph.D. are expected to take during their first year Courses 1 and 2, and during their second year Course 4 either with Course 3 or with a sufficient amount of prescribed reading.

Candidates for the degree of M.D. are required to take Course 3 during both their first and their second years.

Courses

1—General physiology—Structure of protoplasm, physiology of the cell; physiological division of labor and evolution of special functions; irritability; contractility; phototaxis; geotaxis; chemotaxis;. galvanotaxis; general principles of secretion; the nerve cell; the nerve impulse; reflex action; the germ cells. Lectures, 1 hour. Professor LEE

A partial minor or major for the degree of A.M. or of Ph.D. open, as an optional course, to qualified candidates for the degree of M.D. Usually combined with Course 2. Prerequisite: Zoölogy 2, or its equivalent, or the first year's work in Medicine.

2—Laboratory course in general physiology. 5 hours. Professor LEE and Mr. BUDINGTON

A partial minor or major for the degree of A.M. or of Ph.D. open, as an optional course, to qualified candidates for the degree of M.D. Usually combined with Course 1. Prerequisite: Zoölogy 2, or its equivalent, or the first year's work in Medicine.

3—The physiology of man as related to that of other mammals and of lower vertebrates—This course treats in alternate years of (*a*) the physiology of nutrition and (*b*) the physiology of the muscular and nervous systems and the special senses. Certain introductory lectures are repeated annually. Lectures and demonstrations, 4 hours. Professors CURTIS and LEE and Dr. GREEN

A partial major or minor for the degree of A.M. or of Ph.D. Required, in the first and second years, of candidates for the degree of M.D.

4—Laboratory course in special physiology. 3 hours. Professor CURTIS

A partial major or minor for the degree of A.M. or Ph.D. Open, as an optional course, to qualified candidates for the degree of M.D.

Research

The laboratory is open for research, under the direction of its officers, to advanced workers.

Fellowships

For the Alumni Association Fellowships open to persons desiring to do special work in the department of Physiology, see page 46

For the University Fellowships, also open as above, see page 33

Marine Laboratory

An investigator's room at the Marine Biological Laboratory at Wood's Hole, Mass., has been provided by the University for the use of the department of Physiology. This renders possible, during the summer, researches upon the physiology of the marine fauna.

Equipment

The department of Physiology possesses:

(1) A laboratory, for research and the preparing of demonstrations, covering 1769 square feet and lighted on three sides.

(2) A small laboratory for histological research with special reference to physiological problems.

(3) Two rooms for optical or psychological work or for photography, communicating with the main research laboratory and with one another. One of these has a free southerly exposure for the heliostat.

(4) Two private laboratories for the professors of the department.

(5) A laboratory for practical instruction.

(6) A room for lectures and demonstrations to limited classes.

(7) Easy access to a large lecture-room specially fitted for experimental teaching.

(8) The Swift Physiological Cabinet, for the accommodation of a specially endowed and very full collection of apparatus of precision, mainly for research.

The physiological journals in English, German, and French are accessible at the laboratory to advanced students; also the most important monographs and other books both modern and ancient.

A skilled mechanic is employed to devote his entire working time at the laboratory to the care and improvement of the plant, including the making, altering, and repairing of special apparatus. He also assists in the scientific manipulations. The following machines and apparatus deserve mention:

An upright seven-horse-power steam-engine, mounted against a pier upon an iron bracket to avoid floor vibrations, and working a shaft which runs the whole length of the main research laboratory; electric motors and shafting in the laboratory for practical instruction and in the demonstration room; two steam lathes; apparatus worked by motors for artificial respiration; Ludwig's "Schlagwähler"; kymograph for a long roll of paper, and high-speed drum kymograph, both worked by steam; high-speed drum kymograph, worked by weights; two drum kymographs of the spring pattern; eight high-speed drum kymographs, worked by the electric motor; Hürthle's kymograph for a very long band of smoked paper; two single drums, to be revolved by hand; four "Basel stands" for the fine adjustment of recording levers; Zeiss scales and other instruments for reading and measuring curves, including a planimeter; electro-magnetic chronographs and control hammer; seconds pendulum; interrupter clock; Jaquet's recording chronometer; automatic dry-contact tuning-forks; short-beam quantitative balance; copper voltameter; milliampère- and ampère-meters; galvanometers, with coils of high and low resistance; electro-dynamometer; capillary electrometers; ohmmeter, for resistances of from 0.001 to 200.000 ohms; Edelmann's faradimeter; thirteen horizontal and two upright du Bois induction coils; a complete collection of du Bois-Reymond's other apparatus; moist chambers and muscle-levers; upright rheochord; mechanical tetanomotor; differential rheotome; Marey's tambours, cardiographs, stethograph, and explorer of the human muscles; sphygmographs; plethysmograph; oncometers; three single and one double recording mercurial manometers; pring manometer of Fick; manometers of Hürthle; tonographs of von Freys;

"Stromuhr"; frog-heart apparatus; thermo-electric apparatus; constant-pressure injection apparatus; two mercurial gas pumps; large spectroscope; direct-vision spectroscopes; Ladd spectroscope; four micro-spectroscopes; heliostat; sixteen microscopes and accessories; Zeiss's, Leitz's, and Westien's dissecting microscopes; Thoma's microtome; Leitz's large projection apparatus; Anschütz's "Schnellseher"; numerous instruments and models for the investigation and demonstration of the physiology of sight and hearing; casts and models of the brain; Dalton's apparatus for making sections of the human brain.

Political Economy and Finance

(See page 93)

Political Philosophy

(See page 132)

Portuguese and Rumanian

(See page 197)

Practice of Medicine

FRANCIS DELAFIELD, M.D., LL.D	*Professor*
WALTER B. JAMES, M.D	*Instructor in Medical Diagnosis*
FRANK W. JACKSON, M.D	*Chief of Clinic and Instructor in Medical Diagnosis*
GEORGE ROE LOCKWOOD, M.D	*Clinical Assistant and Instructor in Medical Diagnosis*
WILLIAM K. DRAPER, M.D	*Clinical Assistant and Instructor in Physical Diagnosis*
VAN HORNE NORRIE, M.D	*Clinical Assistant and Instructor in Physical Diagnosis*
GEORGE MONTAGUE SWIFT, M.D	*Instructor in Medicine*
ARTHUR M. SHRADY, M.D	*Clinical Assistant*
ARTHUR R. BRAUNLICH, M.D	*Clinical Assistant*
WILLIAM ARMSTRONG, M.D.	*Clinical Assistant*
E. L. DOW, M.D.	*Clinical Assistant*
ALBERT E. SUMNER, M.D	*Instructor in Physical Diagnosis*

Courses

1—The practice of medicine. Didactic lectures, 2 hours for the session. Professor DELAFIELD

Required, in the third and fourth years, of candidates for the degree of M.D.

2—Clinical lectures on general medicine at the Vanderbilt Clinic. 1 hour. Th. at 3 P.M. Professor DELAFIELD

Required, in the third and fourth years, of candidates for the degree of M.D.

3—Physical diagnosis. Practical instruction; 30 lessons for each student. Drs. DRAPER, NORRIE, and SUMNER

Required, in the third year, of candidates for the degree of M.D.

4—Hospital diagnosis. Practical instruction; 20 lessons for each student. Drs. Jackson, James, and Lockwood

Required, in the fourth year, of candidates for the degree of M.D.

5—Hospital clinics in general medicine. Roosevelt hospital. Monday at 4 P.M., throughout the academic year. Professors Delafield and Peabody

New York Hospital. Saturdays at 9.30 A.M., and Mondays at 3 P.M. Professors Draper and Peabody. (See "Materia Medica and Therapeutics.")

Presbyterian Hospital. Tuesdays at 3 P.M.

Attendance at hospital clinics is optional, in the third and fourth years, for candidates for the degree of M.D.

Provençal

(See page 196)

Psychology

(See page 176)

Public Law and Jurisprudence

(See page 139)

Rhetoric and English Composition

(See page 117)

Romance Languages and Literatures

Adolphe Cohn, LL.B., A.M.	*Professor*
* Henry Alfred Todd, Ph.D.	*Professor of Romance Philology*
Carlo Leonardo Speranza, LL.B., A.M.	*Adjunct Professor*
* Benjamin Duryea Woodward, Ph.D.	*Instructor*
Louis Auguste Loiseaux, S.B.	*Instructor*
Curtis Hidden Page, Ph.D.	*Lecturer*
† Henry Bargy, A.M.	*Lecturer*
Daniel Jordan, S.B., Pd.B.	*Tutor*
* John Driscoll Fitz-Gerald, A.B.	*Assistant*
† William A. Nitze, Ph.D.	*Lecturer*
A. Béziat de Bordes, Ph.D.	*Lecturer*

The department of the Romance Languages and Literatures has charge of all the courses of instruction and research throughout the University, dealing with the various languages that trace their origin to the speech of ancient Rome. To the chief of these languages, the French, Italian, and Spanish, a foremost place is naturally assigned in the work of the department; but special attention is also given, in the more advanced courses, to the remaining members of the family, such as Old and Modern Provençal, Catalan, Portuguese, Rhæto-Romance, and Rumanian, several of which are possessed of noteworthy literary and philological interest.

* Absent on leave.

† On Barnard College Foundation.

The department offers: (1) to students in Columbia College, practical instruction in French, Italian, and Spanish, courses in French, Italian, and Spanish literature, and introductory instruction in Romance philology; (2) to students in the School of Philosophy, advanced instruction in literature and in Romance philology, courses in the languages unprovided for in Columbia College, and also instruction of a pedagogical character; (3) to university students at large, and also to auditors, an opportunity to follow special courses; while advanced students in particular may receive the preparation necessary to meet the requirements in French made of every candidate for the degree of Ph.D. One of the aims of the department is to offer at least one course in each of the languages of the Romance group. Although no course in philology proper is offered to members of the lower classes in the College, it may be stated that from the outset care is taken to suggest the significance of the historical development of the language taught, so as to furnish a solid foundation for grammatical knowledge, and to awaken in some portion of the students a taste for philological research.

The courses at present offered are grouped under the following headings: French, Provençal, Italian, Spanish, Portuguese, Rumanian, Romance Philology.

Courses 9 and 10, under French, are given by Professor BRANDER MATTHEWS of the department of English.

Courses in French

C—Elementary course for university students.

Books: Chardenal, *Complete French Course;* Super, *French Reader;* Labiche et Martin, *Le Voyage de M. Perrichon;* Halévy, *L'Abbé Constantin;* Sandeau, *Mademoiselle de la Seiglière;* About, *La Mère de la Marquise;* also, if time serve, Sand, *La Mare au diable.* 3 hours, first half-year; 2 hours, second half-year. Dr. BÉZIAT DE BORDES

Intended for *advanced students* from any department of the University who have omitted to take French in the earlier part of their course. It is expected that work can be pushed forward fast enough to enable them to join in Course 1 at the beginning of the second half-year. No examination will be conducted in this course. Students preparing for the entrance examination in French will not be admitted.

A—Elementary course for freshmen.

Books: Chardenal, *Complete French Course;* Grandgent, *Materials for French Composition*, Part III; Super, *French Reader;* Daudet, *Choix de Contes;* Halévy, *L'Abbé Constantin;* Alexander Dumas, *La Tulipe noire;* Lamartine, *Scènes de la Révolution françaises extraites de l'Histoire des Girondins.*

Outside reading, Foncin, *Le Pays de France*, or Rambaud, *Petite Histoire de la Civilisation française.*

3 hours. Mr. JORDAN, Dr. NITZE, and Dr. BÉZIAT DE BORDES

Prescribed for freshmen who entered the College without presenting French.

B—Elementary course for freshmen. The work is intended for freshmen who wish to take Course 2 in their sophomore year and is the equivalent of Courses A and 1 combined. It is accepted as a substitute for Course A.

Books: Chardenal, *Complete French Course;* Edgren, *French Grammar;* Grandgent, *French Composition;* Daudet, *Choix de Contes;* Halévy, *L'Abbé*

Constantin ; George Sand, *La Mare au diable ;* Mérimée, *Colomba ;* About, *Les Mariages de Paris ;* Labiche et Martin, *Le Voyage de M. Perrichon ;* Sandeau, *Mademoiselle de la Seiglière ;* Augier et Sandeau, *Le Gendre de M. Poirier ;* Molière, *L'Avare*, *Le Bourgeois Gentilhomme.*

5 hours. Dr. NITZE and Dr. BÉZIAT DE BORDES

1—Grammar, reading, composition.

Books : Edgren, *French Grammar ;* Grandgent, *French Composition ;* George Sand, *La Mare au diable ;* Mérimée, *Colomba ;* About, *Les Mariages de Paris ;* Lesage, *Gil Blas ;* Labiche et Martin, *Le Voyage de M. Perrichon ;* Sandeau, *Mademoiselle de la Seiglière ;* Molière, *L'Avare*, *Le Bourgeois Gentilhomme.*

Outside reading : George Sand, *Nanon.*

3 hours. Mr. LOISEAUX, Mr. JORDAN, and Dr. BÉZIAT DE BORDES

Open to freshmen and sophomores who have passed the entrance examination in French or taken course A.

2—General introduction to the study of French literature. Composition.

Books : Corneille, *Le Cid ;* Racine, *Phèdre ;* Molière, *Les Précieuses ridicules*, *Le Misanthrope ;* La Fontaine, *Fables ;* Bossuet, *Oraisons funèbres ;* Marivaux, *Le Jeu de L'Amour et du Hasard ;* Voltaire, *Prose* (extracts, edited by Cohn and Woodward) ; Canfield, *French Lyrics ;* Victor Hugo, *Ruy Blas ;* Alfred de Musset, *Selections* (ed. Kuhns) ; Pailleron, *Le Monde où l'on s'ennuie ;* Sainte-Beuve, *Extraits des Causeries du Lundi ;* Gazier, *Petite Histoire de la Littérature française.*

Outside reading : first half-year, Voltaire, *Le Siècle de Louis XIV ;* second half-year, one of the following, to be selected by the student : Mme. de Staël, *Corinne ;* Victor Hugo, *Quatre-vingt-treize ;* A. de Vigny, *Cinq-Mars.*

3 hours. Mr. LOISEAUX and Mr. JORDAN

Open to students, not seniors, who have taken Course B or 1, or its equivalent.

3—French rhetoric.

Books : Larive et Fleury, *Troisième Année de Grammaire ;* La Fontaine, *Fables ;* Leune, *Difficult Modern French ;* Daudet, *Contes ;* Paul Bourget, *Extraits choisis* (ed. Van Daell) ; Fontaine, *Les Historiens français du dix-neuviéme Siècle ;* Canfield, *French Lyrics.*

Outside reading : Reinach, *L'Éloquence française depuis la Révolution jusqu'à nos jours ;* Effinger, *Extraits de Sainte-Beuve.*

3 hours. Mr. LOISEAUX

Open to students who have taken Course 2 or its equivalent.

4—History of French literature in the seventeenth century.

Books : Descartes, *Discours de la Méthode ;* Pascal, *Les Provinciales* (lettres 1, 4, 13, edition Brunetière, Paris, Hachette) ; Corneille, *Théâtre choisi ;* Molière, *Œuvres complètes ;* Racine, *Œuvres complètes ;* Boileau, *Art poétique ;* Bossuet, *Oraisons funèbres ;* La Rochefoucauld, *Maximes ;* La Bruyère, *Les Caractères ;* Sévigné, *Choix de Lettres ;* Lanson, *Histoire de la Littérature française.*

Rambaud's *Histoire de la Civilisation française*, and Brunetière, *Manuel de l'Histoire de la Littérature française*, are strongly recommended as collateral reading.

3 hours. Professor COHN, Mr. BARGY, and Dr. BÉZIAT DE BORDES

Open to students who have taken Course 2 or its equivalent.

The following courses, with the exception of Course 12, are open only to students who have taken at least Course 4, or who can offer a satisfactory equivalent for the work therein described.

5—History of French literature in the eighteenth century, especially Voltaire.

3 hours. Professor COHN

Not given in 1900–01. Will be given in 1901–02.

6—History of French literature in the eighteenth century, especially Montesquieu, Rousseau, the Encyclopedists.

Books: Lanson, *Histoire de la Littérature française ;* Montesquieu, *Lettres persanes*, *Esprit des Lois* (first five books and extracts, edited by Paul Janet, Paris, Delagrave); Rousseau, *Discours sur les Sciences et les Arts*, *Lettre sur les Spectacles*, *Contrat social* (all these may be had in one volume, published by Garnier frères, Paris), *Emile* (Livre IV, including the *Profession de Foi du Vicaire savoyard*); Diderot, *Pages choisies* (Armand Colin, Paris); D'Alembert, *Discours préliminaire de l'Encyclopédie :* Beaumarchais, *Mémoires*, *Le Mariage de Figaro ;* Mirabeau, *Morceaux choisis*.

Rambaud's *Histoire de la Civilisation française*, and Brunetière, *Manuel de l'Histoire de la Littérature française*, are strongly recommended as collateral reading.

Students who have already taken Course 5 will be excused from attending the lectures which do not deal especially with Montesquieu, Rousseau, the Encyclopedists, and their successors; for such students the course will count only as two hours.

3 hours. Professor COHN and Mr. BARGY

7—The literary movement in France in the first half of the nineteenth century.

Books: *Pages choisies* of Rousseau, Chateaubriand, Th. Gautier (collection Colin); Lamartine, *Méditations*, *Nouvelles Méditations*, *Harmonies*, *Jocelyn ;* Vigny, *Poèmes*, *Journal d' un Poète ;* Musset, *Poésies ;* Hugo, *Odes et Ballades*, *Orientales*, *Feuilles d'Automne*, *Chants du Crépuscule*, *Voix intérieures*, *Les Rayons et les Ombres*, *Notre-Dame de Paris*, *Cromwell*, *Hernani*, *Les Burgraves*.

2 hours. Dr. PAGE and Mr. BARGY

8—The literary movement in France in the second half of the nineteenth century.

2 hours. Dr. PAGE and Mr. BARGY

Not given in 1900–01; will be given in 1901–02.

9—The French dramatists of the nineteenth century.

2 hours. First half-year. Professor BRANDER MATTHEWS

Identical with first half of English 41.

10—Molière and modern comedy.

2 hours. First half-year. Professor BRANDER MATTHEWS

Identical with English 42.

11—History of literary criticism in France, especially Sainte-Beuve and Brunetière.

No book is especially prescribed for this course, but every student will be expected to make constant use of the resources of the University Library. Special subjects will be assigned to him, upon which he will have to report before the class.

2 hours. Mr. BARGY

12—History of the French language.

Book: Darmesteter, *Cours de Grammaire historique.*

3 hours. First term. Professor TODD

Open to students who have taken Course 2.
Not given in 1900-01. Will be given in 1901-02.

13—Old French. Reading of selected extracts.

Books: Gaston Paris and A. Jeanroy, *Extraits des Chroniqueurs français* (third edition); Gaston Paris, *Extraits de la Chanson de Roland* (fourth edition); Bartsch and Horning, *La Langue et la Littérature françaises;* Gaston Paris, *La Littérature française au moyen Âge.*

2 hours. First half-year only. Dr. NITZE

14—Old French. Reading of complete texts.

Books: *Pélerinage de Charlemagne à Constantinople* (Koschwitz's last edition); *Aucassin et Nicolete* (H. Suchier's fourth edition); *Les Lais de Marie de France* (Warnke's edition); Brakelmann, *Les plus anciens Chansonniers français.*

2 hours. Second half-year only. Dr. NITZE

15—Writers of the sixteenth century, especially Montaigne.

Books: Darmesteter et Hatzfeld, *Le Seizième Siècle en France* (Paris, Delagrave); Montaigne, *Essais*, Louandre's edition (Paris, Charpentier), is recommended; Sainte-Beuve, *Tableau historique et critique de la Poésie française au seizième Siècle;* Du Bellay, *Défense et Illustration de la Langue française.*

2 hours. Mr. LOISEAUX

16—Critical bibliography of French literature from the sixteenth to the nineteenth century. 2 hours. Professor COHN

Not given in 1900-01. Will be given in 1901-02.

17—Methods of teaching French. 2 hours. Professor COHN

Open not only to students in Columbia University, but also to students in the Teachers College.

Seminar—Special topics in Romance literature. The French drama from 1789 to 1848. 2 hours. Professor COHN

N. B.—For other advanced courses in French language and literature, see under Romance Philology.

Optional Courses

D—French conversation (elementary course). 1 hour. Dr. BÉZIAT DE BORDES

E—French conversation (advanced course). 1 hour. Mr. JORDAN

Course in Provençal

1—Old Provençal.

Books: Appel, *Provenzalische Chrestomathie;* Gröber's *Grundriss* (Strasburg, 1888).

1 hour. Professor TODD

Not given in 1900–01. Will be given in 1901–02.

Courses in Italian

1—Elementary course—Grammar, reading, composition.

Books: Grandgent, *Italian Grammar:* Grandgent, *Italian Composition Book;* Martini, *Prose italiane moderne con posie.*

3 hours. Professor SPERANZA

Open to all students, not seniors, who have satisfied the requirements in French and German. It may not be taken at the same time with Spanish 1.

2—Italian literature in the sixteenth century. Composition.

Books: Fr. Torraca, *Manuale della Letteratura italiana*, vol. ii.; G. Lisio's critical edition of *Del Principe;* Pio Rajna, *Le Fonti dell' Orlando Furioso;* P. Villari, *Machiavelli e i suoi Tempi;* A. Solerti, *Gerusalemme liberata.*

3 hours. Professor SPERANZA

Open only to students who have taken Course 1 or its equivalent.

3—Italian literature in the fourteenth and fifteenth centuries, exclusive of the Divina Commedia. Composition.

3 hours. Professor SPERANZA

Open only to students who have taken Course 1 or its equivalent.
Not given in 1900–01. Will be given in 1901–02.

4—Critical study of Dante's Divina Commedia. 2 hours. Professor SPERANZA

5—History of Italian literature — Lectures and private reading. 1 hour. Professor SPERANZA

N.B.—For other advanced courses in Italian language and philology, see under Romance Philology.

Courses in Spanish

1—Elementary course—Grammar, reading, composition.

Books: Loiseaux, *Elementary Grammar of the Spanish Language;* Loiseaux, *Elementary Spanish Reader* (Silver, Burdett & Co.); P. A. de Alarcón, *El Capitan Veneno;* B. P. Galdós, *Doña Perfecta, Marianela;* Bretón de los Herreros, *La Independencia* (Loiseaux's edition).

3 hours. Mr. LOISEAUX

Open to all students, not seniors, who have satisfied the requirement in French and German. It may not be taken at the same time with Spanish 1.

2—Advanced course—Grammar, reading, composition. Don Quixote and the age of Cervantes. 3 hours. Mr. FITZ-GERALD

Open only to students who have taken Course 1 or its equivalent.
Not given in 1900–01. Will be given in 1901–02.

3—Advanced course—Grammar, reading, composition. The Spanish classical drama.

Books: Valdés, *José;* Joaquín Estébanez, *Un Drama nuevo;* Calderón, *La Vida es Sueño;* Lope de Vega, *Obras maestras.*

Reference books: Moratín, *Origenes del Teatro Español;* Ticknor, *History of Spanish Literature*, translated into Spanish by Vedia and Gayanos. 3 hours. Mr. LOISEAUX

Open only to students who have taken Course 1 or its equivalent.

4—The origins of Spanish poetry. El Poema del Cid. 1 hour. Professor TODD

Not given in 1900–01. Will be given in 1900–02.

5—History of Spanish literature—Lectures and private reading. 1 hour. Professor COHN

N.B.—For other advanced courses in Spanish language and philology, see under Romance Philology.

Optional Course

A—Spanish conversation. 1 hour. Mr. LOISEAUX

The following two courses are open only to graduate students who have a knowledge of French and of at least one other Romance language, as well as a reading knowledge of German:

Portuguese

1—Books: Lencestre, *La Langue portugaise;* Camoens, *Os Lusiadas.*
2 hours. Professor TODD

Not given in 1900–01. Will be given in 1901–02.

Rumanian

1—Books: Candréa, *Grammaire roumaine;* Cionca, *Praktische Grammatikă der Romänischen Sprache;* Tocilescu, *Manual de Istoria Românǎ.*
2 hours. Professor COHN.

Courses in Romance Philology

1—Introduction to Romance philology. 2 hours. Professor TODD

Open to seniors in Columbia College and to university students.

Not given in 1900–01. Will be given in 1901–02.

The following courses are open only to university students

Courses 2, 3, and 4 are given in successive years.

2—The works of Chrétien de Troyes. 1 hour. Dr. NITZE

3—Old French dialects. 1 hour. Professor TODD

Not given in 1900–01. Will be given in 1901–02.

4—The formative elements of Romance speech. 1 hour. Professor TODD

Not given in 1900–01. Will be given in 1902–03.

Seminar—Special topics in Romance Philology. 2 hours. Professor TODD

Not given in 1900–01. Will be given in 1901–02.

N.B.—Weekly lectures in French, Italian, and Spanish, open to all members of the University, are given by the members of the department and by distinguished European lecturers.

The Romance Club

The Romance Club consists of all the instructors and advanced students in the department. At its meetings, which take place at stated times,—usually once in two weeks, in room 302, West Hall,—an account is given of the most important articles on the Romance Languages and Literatures in the recent French, English, German, Italian, and Spanish periodicals; new books are discussed, letters from absent instructors and former students in the department are read, etc. The meetings are partly of a social character, and are intended to bring instructors and students into closer personal relations.

Equipment

The Library of Columbia University is well supplied with French, Spanish, and Italian works, as well as with works upon Romance philology. Its list of periodicals of interest for students in the department is especially rich. The Library has also complete sets of the most important series and collections, such as the Altfranzösische Bibliothek, Romanische Bibliothek, publications of the Modern Language Association, publications of the Société des anciens Textes français, Histoire littéraire de la France, Ausgaben und Abhandlungen aus dem Gebiete der romanischen Philologie, Jahrbuch für romanische und englische Sprachen, etc.

French Societies

Two societies have been organized for the purpose of fostering the use of the French language among the members of the University, viz., the *Société Française de l'Université Columbia*, which admits only men, and the *Société Française de Barnard College*, which admits only women. Joint meetings are held several times in the year by the two societies. They also give performances of French plays. The following plays have been presented in recent years: Scribe and Legouvé, *Bataille de Dames;* Jules Moinaux, *Les deux Sourds;* Meilhac and Halévy, *L'Eté de la Saint-Martin.*

Surgery

William T. Bull, M.D	*Professor*
Robert F. Weir, M.D	*Professor*
Charles McBurney, M.D	*Professor of Clinical Surgery*
Frank Hartley, M.D	*Professor of Clinical Surgery*
Francis H. Markoe, M.D	*Professor of Clinical Surgery*
Bern B. Gallaudet, M.D	*Instructor*
Andrew J. McCosh, M.D	*Clinical Lecturer*
Charles T. Poore, M.D	*Clinical Lecturer*
Robert Abbe, M.D	*Clinical Lecturer*
William B. Coley, M.D	*Clinical Lecturer*
Ellsworth Eliot, Jr., M.D	*Clinical Lecturer and Demonstrator*
Lucius W. Hotchkiss, M.D	*Instructor*

Charles N. Dowd, M.D	*Instructor*
Joseph A. Blake, M.D	*Instructor*
George E. Brewer, M.D	*Instructor*
Charles H. Peck, M.D	*Assistant Instructor in Operative Surgery*
Warren S. Bickham, M.D	*Assistant Instructor in Operative Surgery*
Alfred S. Taylor, M.D	*Assistant Instructor in Operative Surgery*
Edward M. Foote, M.D	*Chief of Clinic, Instructor*
Walton Martin, M.D	*Instructor*
D. S. D. Jessup, M.D	*Clinical Assistant*
F. R. Cook, M.D	*Clinical Assistant*
J. C. Ayer, M.D	*Clinical Assistant*
H. E. Meeker, M.D	*Clinical Assistant*
A. S. Taylor, M.D	*Clinical Assistant*
Pedro F. Francke, M.D	*Clinical Assistant*
William P. Herrick, M.D	*Clinical Assistant*

Courses

1—Surgical pathology, general and regional surgery—Didactic lectures. 1 hour. Professors Bull and Weir

Required, in the third and fourth years, of candidates for the degree of M.D.

2—Clinics in general surgery at the Vanderbilt Clinic. 2 hours, M. and Th. at 12. Professors Bull and Weir

Required, in the third and fourth years, of candidates for the degree of M.D.

3—Minor surgery and bandaging—Practical instruction at the Vanderbilt Clinic, and the out-patient department, Roosevelt Hospital. 12 lessons for each student. Drs. Foote and Martin

Required, in the third year, of candidates for the degree of M.D.

4—Practical instruction in minor operative surgery at the Vanderbilt Clinic. 1 lesson per week to each student for two months. Dr. Foote

Required, in the fourth year, of candidates for the degree of M.D.

5—Operative surgery upon the cadaver—Practical instruction to classes of 20 members each. Each student performs for himself upon the cadaver the principal operations, including the ligation of arteries, amputations, resections, and the removal of parts. Special attention is paid to operations upon the abdominal viscera. 7 to 12 lessons for each student. Drs. Hartley, Peck, Bickham, and Taylor

Required, in the fourth year, of candidates for the degree of M.D.

6—Practical instruction in surgery to classes of 20 members each in the wards of Bellevue Hospital and the Syms Operating Theatre, Roosevelt Hospital. 16 lessons. Drs. Gallaudet, Hotchkiss, Brewer, and Blake

Attendance obligatory in the fourth year.

7—Practical instruction in the surgery of children at St. Mary's Free Hospital for Children, to classes of 20 members once a week for two months for each student. Dr. Dowd

For third-year students, optional.

8—Recitations in general and regional surgery. Three recitations per week in the third, and two per week in the fourth year. Dr. ELIOT

Required, in the third and fourth years, of candidates for the degree of M.D.

9—Hospital clinics:

New York Hospital.
S., 11.15 A.M. Professors HARTLEY and MARKOE

Roosevelt Hospital, Syms Operating Theatre.
S., 2.30 P.M. Professor WEIR
Tu., 3.30 P.M. Professor BULL

Presbyterian Hospital.
Th., 3 P.M. Dr. MCCOSH

St. Luke's Hospital.
Fri., 2.30 P.M. February to June. Dr. ABBE

Hospital for Ruptured and Crippled.
Fri., 8.30 A.M. Professor BULL and Dr. COLEY

St. Mary's Free Hospital for Children.
Th., 10.30 A.M. to 11.30 A.M. Dr. POORE

Attendance at the hospital clinics of Professors Bull and Weir is required in the third and fourth years. At the other clinics, attendance is optional.

Zoölogy

EDMUND B. WILSON, Ph.D	*Professor*
HENRY FAIRFIELD OSBORN, Sc.D	*Professor*
*BASHFORD DEAN, Ph.D	*Adjunct Professor*
GARY N. CALKINS, Ph.D	*Instructor*
†HENRY E. CRAMPTON, Ph.D	*Instructor*
OLIVER S. STRONG, Ph.D	*Tutor*
JAMES H. MCGREGOR, Ph.D	*Tutor*
FREDERICK C. PAULMIER, Ph.D	*Assistant*

The courses in this department are mainly elective and lead to the degrees of A.B., A.M., and Ph.D. They consist of lectures, conferences, seminars and laboratory work, and are arranged consecutively, advancing from instruction belonging properly to a liberal education up to the most advanced and special work.

The lecture and laboratory courses are conducted upon the fourth floor of Schermerhorn.

A—INTRODUCTORY BIOLOGICAL COURSES. Courses 1 and 2 give an introduction to the principles of animal biology as part of the general education of scientific and academic students. Course 1 is intended for students in the Schools of Applied Science as the preparation for subsequent studies in geology and palæontology. Course 2 is a biological course especially designed, first, for college students electing science for purposes of general culture; second, as an introduction to more advanced courses in zoölogy, botany, and physiology; and, third, as preparation for students intending to study medicine.

*** Absent on leave.** **† On Barnard College Foundation.**

B—INTERMEDIATE ZOÖLOGICAL COURSES. Course 3, which naturally follows 2, covers a wider range, and is intended for students preparing for more advanced work in zoölogy, and for medicine, physiology, embryology, botany, palæontology, and geology. This course, open to seniors and graduates, is the second stage of preparation for major work in zoölogy, and, under the conditions stated below, may count towards the higher degrees. The work in embryology (3b) may be taken as a separate elective. Parallel to Course 3 are offered Courses 4 and 13 in neurology, open to seniors and graduates, which may also with advantage be taken by prospective medical students.

C—APPLIED ZOÖLOGY. Course 15 is intended for students in civil engineering and in sanitary science, and is not dependent upon any other courses.

D—UNIVERSITY COURSES. Courses 4 to 14, founded upon 2 and 3, may be so combined as to carry the student progressively forward to the most highly specialized study and research. The following requirements, given as a guide to students, are subject to modification in special cases. (1) A Ph.D. major in zoölogy requires, after Courses 2 and 3 (or their equivalent), Course 5 and the equivalent of at least one other full-year course in addition to research. (2) For a Ph.D. minor, Course 3 (or its equivalent) may constitute one half the requirement in the case only of students who have not taken this course as undergraduates; the remaining half comprises any one of the full-year courses, 4, 5, 8, 13, or any two of the half-year courses, 6, 7, 9, 10, 14. Where students have been able to take Course 3 as undergraduate work, a minor comprises, in addition, the equivalent of two full-year or four half-year courses. The requirement for an A.M. major is in general the same as that for a Ph.D. minor.

E—UNIVERSITY BIOLOGICAL LECTURES. In addition to the regular instruction, series of lectures of a broader character are from time to time given by members of the staff and others in the general lecture-room on the first floor of Schermerhorn. In former years courses have been given by Professor Edward B. Poulton, of Oxford University, Professor C. Lloyd Morgan, of University College, Bristol, Professor W. K. Brooks, of the Johns Hopkins University, and Professor T. H. Morgan, of Bryn Mawr College.

BIOLOGICAL SEMINAR. Informal discussion and criticism of biological theories in connection with the history of zoölogy. Conducted by officers of the department and graduate students. Thursday evenings, 8 P.M. (February and March). In addition to this a regular seminar is given in connection with Course 5.

JOURNAL CLUB. One of the special features of the department is the Journal Club, open to instructors and all advanced students, and meeting every week in the Library to report upon special investigations and to present abstracts of articles of particular importance in the biological journals.

Elementary Courses

1—Elementary zoölogy—A systematic and descriptive course, including a brief review of the general principles of zoölogy, especially classification, distribution, heredity, and evolution. Particular reference to extinct forms. Text-book: Packard's *Zoölogy* (briefer course). Lectures and laboratory work, 3½ hours, second half-year. Professor DEAN and Dr. CALKINS

Open to students under the Faculty of Applied Science. A required course for first-year Mining Engineers.

2—Elementary biology (zoölogy)—Introductory to morphology and physiology and to the general principles of biology.

This work is arranged in a longer and a shorter course, consisting of 3 and 2 exercises a week, respectively. The shorter course omits the work in histology and embryology. In this course a detailed study of a series of living forms is made the basis for brief discussions of essential principles.

First Half-Year

(a)—General biology. 2 exercises a week throughout the first quarter-year. General introduction. Protoplasm and the cell. Biology of the earth-worm and the fern. Unicellular organisms: Amœba, pleurococcus, yeast, bacteria, infusoria. Spirogyra, hydra, hydroids. Professor WILSON and Dr. CALKINS

(b)—Elementary zoölogy (invertebrates). 2 exercises a week throughout the second quarter-year. The earth-worm, lobster, crab, insect, mussel, starfish, ascidian, and other types. Dr. CALKINS and Dr. PAULMIER

(c)—Elementary histology (longer course). 1 exercise a week throughout the half-year. General study of animal cells and tissues. Dr. STRONG, Dr. MCGREGOR

Second Half-Year

(d)—Elementary zoölogy (vertebrates). 2 exercises a week. The lancelet, dogfish, frog, pigeon, and rabbit. In addition the main problems of evolution and heredity are briefly explained. Professor DEAN and Dr. MCGREGOR

(e)—Elementary embryology (longer course). 1 exercise a week. Development of the frog and chick. Professor DEAN and Dr. MCGREGOR

Text-books: Sedgwick and Wilson's *General Biology;* Marshall and Hurst's *Practical Zoölogy;* Jordan and Kellogg's *Animal Life.* Reference books; Parker's *Elementary Biology;* Osborn's *Greeks to Darwin;* Foster and Balfour's *Elements of Embryology.*

Open to juniors and seniors. 2 or 3 lectures and 4 to 6 hours laboratory work throughout the year.

Intermediate Courses

3—General zoölogy. Vertebrate and invertebrate zoölogy, anatomy, embryology, and ætiology (natural environment, terrestrial and marine faunal areas, principles of distribution).

(a)—Comparative morphology, classification, and general zoölogy of invertebrates. Dr. CALKINS

(b)—Classification and comparative anatomy of the main living orders of fishes, amphibians, reptiles, birds, and mammals. Practical study of the skeleton, integument, muscles, nerves, viscera. Professor DEAN.

(c)—Embryology (vertebrates). An examination of the characteristic stages of fishes, amphibian, reptile, bird, and mammal. Embryological technique. Professor DEAN (d)—Mammalian dissection. Detailed practical study of a mammal with practice in technique. Optional with (a) for preparatory medical students. Dr. McGregor

Text-books: Wiedersheim's *Comparative Anatomy;* Parker's *Zoötomy;* Parker and Haswell's *Zoölogy*; Hertwig's (Mark's) *Embryology.*

Open to seniors and graduates. 3 lectures and 6 hours laboratory work throughout the year. The course in elementary biology (2) is a pre-requisite for this course. Students who have previously taken only the shorter course (2—a, b, d) will be required to make up the work included in Courses 2 c, 2 e, but the latter work will not be considered as a partial equivalent for graduate courses. The embryology, 3 (b), may be taken as an elective.

4—Comparative neurology. An introduction to the comparative structure of the brain and nervous system of the lower and higher animals. The invertebrate nervous system is broadly treated, as throwing light upon general neurological questions as to the origin and structure of the nervous system. The vertebrate nervous system is studied more in detail, as also leading to a better comprehension of the nervous system of man. Comparative anatomy of the brain, spinal cord, and nerves in amphioxus, fishes, amphibians, reptiles, birds, and mammals. Training in the Weigert, Golgi, and other technical methods. Edinger's *Twelve Lectures upon the Nervous System;* Gaupp's *Anatomie des Frosches*, Abth. ii., erste Hälfte; also the text-books of Wiedersheim and Gegenbaur and the works of Golgi, Cajal, Lenhossék, and others. Dr. Strong

Open to advanced seniors and graduates. 1 lecture and at least 4 hours laboratory work a week throughout the year. A shorter supplementary course may be offered when desired to supply a more thorough training in neurological technique.

13—The human brain and spinal cord. This course includes a study of both macroscopic and microscopic structure, supplemented wherever necessary by references to the structure of the nervous systems of lower forms. It naturally follows 4 but may be taken separately. A previous general knowledge of histology and of the nervous systems of some of the more typical vertebrate brains is desirable. Lecture and four hours laboratory work a week throughout the year. Reference books: The text-books of Edinger, Schäfer, Obersteiner, Déjerine, van Gehuchten, and Kölliker. Dr. Strong

Open to a limited number of graduates and to seniors under certain conditions.

Each of the following courses includes a lecture and one or two days of practical work.

University Courses

5—Comparative zoölogy. This course completes the general systematic and morphological training begun in Courses 2 and 3. General anatomy and development of vertebrates and invertebrates, with special reference to the problems of phylogeny and classification. Training in anatomical and embryological technique. Lectures, seminar, and laboratory work. 10 hours (2 days) a week. Wiedersheim's *Grundriss der Vergleichenden Anatomie der Wirbelthiere*, Gegenbaur's *Vergleichende Anatomie*, Parker's *Zoötomy*, Lang's *Comparative Anatomy*, Korschelt-Heider's *Text-book of Embryology*. Special works, monographs, and papers are extensively used in this course. Professors Osborn and Wilson

5a— Readings and conferences in Gegenbaur's *Vergleichende Anatomie*, throughout the year. 1 hour a week. Professor OSBORN and Dr. MCGREGOR

6—Comparative embryology. A comparative treatment of the earlier stages of development, with especial reference to the general problems of embryology. 1 lecture a week with reading, conferences, and specially arranged laboratory work through the second half-year. Professor WILSON

7—Cellular biology. General structure and functions of the cell. 6 hours (1 day) a week through the second half-year. Hertwig, *Zelle und Gewebe;* Wilson's *Cell.* Professor WILSON

8—Mammals, living and fossil. A study of the structure, evolution, and classification of the mammalia. Lecture and laboratory course. Reference books: Flower's *Osteology;* Flower and Lydekker's *Mammals;* Zittell's *Palæontologie.* 6 hours (1 day) a week throughout the year. Professor OSBORN

The latter part of this course is given in the American Museum of Natural History.

9—Fishes, living and fossil. This course is mainly morphological: it includes demonstrations, and gives especial attention to the phylogenetic relations of the sub-classes and orders of fishes. Reference books: Smith Woodward's *Catalogue of Fossil Fishes*, Günther's *Study of Fishes*, and Dean's *Fishes Living and Fossil.* 1 lecture a week with demonstrations during second half-year. Professor DEAN

To alternate with 9a. Given in 1900.

9a—Embryology of fishes. Practical study of Bdellostoma, Petromyzon, Squalus, Chimæra, Ceratodus, Acipenser, Lepidosteus, Amia, and Teleosts. 1 lecture a week with demonstrations during second half-year. Professor DEAN

To alternate with 9.

10—Special morphology—the Protozoa. A general treatment of the classification, morphology, and physiology of this type of organisms, and of their relations to modern theories of biology. 1 lecture a week with demonstrations during second half-year. Bütschli, Protozoa in Bronn's *Thierreich.* Dr. CALKINS

11—Advanced biology. Individual study of special groups of animals or of special biological problems as an introduction to original investigation. The time varies in different cases.

14—Experimental embryology. A survey of the work in the fields of morphogenesis and developmental mechanics. 1 hour lecture a week during the first half-year. Reference books: Wilson's *Cell;* Morgan's *Development of the Frog;* Davenport's *Experimental Morphology.* Dr. CRAMPTON

Applied Zoölogy

15—Sanitary biology. A general course covering the main principles of zoölogy as they apply to microscopical organisms. The Protozoa and other microscopic forms in their relations to odors, tastes, and appearances in drinking waters. Methods and results. Selected readings. Dr. CALKINS

Designed for students in Civil Engineering, Sanitary Science, and Chemistry — Lecture and laboratory work. 3 hours, during the first half-year.

Equipment and Publications

LABORATORIES AND MUSEUM—The zoölogical laboratories on the upper floor of Schermerhorn comprise a large general undergraduate laboratory, two graduate laboratories, a laboratory for neurology, and eight rooms for private research, besides special rooms for supplies, aquaria, and preparation, and a commodious lecture-room, library, and seminar room. The laboratories are well equipped with optical instruments, microtomes, and other apparatus for advanced morphological work. The teaching collections include a large series of the Mediterranean and American marine types, the injected vertebrate series of Frič and Müller, an extensive set of standard and specially prepared charts and wax models, and a variety of living animals and plants contained in fresh-water and marine aquaria. The collection also contains a fine cabinet of shells bequeathed by the late Mr. Van Nostrand.

LIBRARY—The departmental library, a part of the University Library kept in the laboratory, the gift of Charles H. Senff, Esq., is a memorial to the late Dr. John I. Northrup, and embraces full sets of the standard biological works, including the journals and a rapidly increasing collection of memoirs and special monographs. A fund is available for the purchase of literature needed in connection with the special researches of students. Forty-three of the current biological journals are subscribed for. The Library of the New York Academy of Sciences is also housed in the building.

DYCKMAN FUND—The interest of a fund of $10,000 established by Isaac M. Dyckman, Esq., is available annually for the encouragement of biological research. It may be granted, entire or in part, to the applicant recommended by the head of the department; or it may be used in such a way as will best further the purpose of the donor, *e. g.*, for purchases, lectures, or publication.

PUBLICATION—The more important papers published from the laboratory are to be collected and reissued in *Zoölogical Contributions from Columbia University*. The *University Press* issues the *Columbia University Biological Series*, a number of educational volumes originally founded upon public lectures, of which five have already appeared and two others are in preparation. Another feature in advanced instruction is the connection with the biological section of the New York Academy of Sciences, which affords opportunities for public reading, discussion, and printing of scientific papers,

Field-Work

MARINE ZOÖLOGY—The Marine Biological Laboratories at Wood's Hole, Mass., and at Cold Spring Harbor, Long Island, form a valuable adjunct to the biological instruction of the University. In the former, two investigators' rooms are subscribed for the University for the use of the departments of Zoölogy and Physiology; in the latter, a table available through the John D. Jones Scholarship. Circulars of the summer courses are obtainable in the department. Through William E. Dodge, Esq,, the University also subscribes to one half of the American University Table, at the Naples Zoölogical Station, Italy. Applications should be made to Professor Wilson.

THE JOHN D. JONES SCHOLARSHIP, established in the University during the past two years by the Wawepex Society, has been awarded to a graduate student in Zoölogy designated by the head of the department. It amounts to $200 in addition to the fee for an investigator's table at the Cold Spring Harbor Biological Laboratory.

OTHER FIELD-WORK—In addition to the above facilities field-expeditions are from time to time sent out by the department. In 1896 a laboratory was established upon Puget Sound, at Port Townsend, Washington. The investigation of the Pacific fauna, thus begun, was continued during 1897 and 1899 at different points along the coast from Monterey, California, to Sitka, Alaska, and the faunal and morphological reports of this work are now being published. Through the liberality of Charles H. Senff, Esq., two expeditions to the Nile were made during the summers of 1898 and 1899 by N. R. Harrington (Fellow), F. B. Sumner (Fellow), and Dr. Reid Hunt. The materials and publications are in charge of Professor DEAN. In 1900 a party worked at Beaufort, N. C. and at other points on the Atlantic Coast.

American Museum of Natural History

The American Museum of Natural History faces Central Park at 77th Street. By an agreement between the Trustees of the University and of the Museum, effected in 1892, qualified students of the University have access, under certain regulations, to the large exhibition and study collections of the Museum. The Museum is especially strong in the departments of geology, mineralogy, invertebrate palæontology, ornithology, and mammalogy. In 1891 a department of vertebrate palæontology was established under Professor Osborn, as curator, and the extensive collections of fossil mammals being made in the West, as well as the entire Cope collection, afford new materials for original investigation by advanced students.

REGULATIONS FOR THE UNIVERSITY DEGREES

Master of Arts and Doctor of Philosophy

1. Candidates for the degrees of Master of Arts and Doctor of Philosophy must hold a baccalaureate degree in arts, letters, philosophy, or science, or an engineering degree, or an equivalent of one of these from a foreign institution of learning.

Every candidate for a higher degree must present to the dean of each school in which he intends to study satisfactory evidence that he is qualified for the studies he desires to undertake.

2. Candidates for the degrees of Master of Arts and Doctor of Philosophy must pursue their studies in residence for a minimum period of one and two years, respectively.* The year spent in study for the degree of Master of Arts is credited on account of the requirement for the degree of Doctor of Philosophy. Residence at other universities may be credited to a candidate. In certain cases and by special arrangement, time exclusively devoted to investigation in the field will be credited in partial fulfilment of the time required. No degree will be conferred upon any student who has not been in residence at Columbia University for at least one year.

3. Each student who declares himself a candidate for the degrees of Master of Arts and Doctor of Philosophy, or either of them, shall, immediately after registration, designate one principal or major subject and two subordinate or minor subjects.

Candidates are expected to devote at least one half of their time throughout their course of study to the major subject. In the case of laboratory courses this implies two days a week, or its equivalent, as determined by each department. Each minor subject is intended to occupy approximately one fourth of the time during one year for the degree of Master of Arts, and during two years for the degree of Doctor of Philosophy.

Minor subjects may not be changed except by the permission of the Dean, to be given only on the written recommendation of the heads of the departments from which and to which the change is desired; major subjects may not be changed except by a special vote of the faculty in each case.

In the Faculty of Philosophy admission as a regular student or as a candidate for the degree of Master of Arts does not admit to candidacy for the degree of

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* In practice three years of study are usually necessary to obtain the degree of Doctor of Philosophy.

Doctor of Philosophy. Only those students are admitted to candidacy for the degree of Doctor of Philosophy who

(*a*) Are recommended for such candidacy by the heads of the departments in which their major and minor subjects of study lie;

(*b*) Are certified as to their ability to read French and German by the heads of those departments;

(*c*) Are certified as to their ability to read Latin by the head of that department; provided that students whose major subject is psychology, anthropology, education, or music shall not be required to meet this test when it is certified by the professor in charge of their major subject that an ability to read Latin is not necessary for the proper prosecution of their researches.

When a student is admitted to candidacy for the degree of Doctor of Philosophy, he shall be credited with his past period of university residence, or with so much thereof as may be determined by the Dean and the professor in charge of the candidate's major subject.

4. The subjects from which the candidate's selection must be made are:

UNDER THE FACULTY OF PHILOSOPHY

I. *Major Subjects:* 1. Philosophy; 2. psychology; 3. education; 4. linguistics; 5. comparative literature; 6. music; 7. classical archæology and epigraphy; 8. Greek language and literature, and, incidentally, Grecian history; 9. Latin language and literature, and, incidentally, Roman history; and the following, *including in each case the study of both the language and the literature:* 10. English; 11. Germanic; 12. Romance; 13. Sanskrit (with Pālī) and Iranian; 14. Semitic; 15. anthropology. Nos. 3, 5, 10, 11, 12, 13, and 14 count each as the equivalent of a major and one minor subject.

II. *Minor Subjects:* 1. Philosophy; 2. psychology; 3. logic; 4. education; 5. anthropology; 6. linguistics; 7. comparative literature; 8. music; 9. Greek; 10. Greek archæology; 11. Latin; 12. Roman archæology; 13. Sanskrit; 14. Iranian; 15. English; 16. Anglo-Saxon; 17. Gothic; 18. Germanic philology; 19. German language and literature; 20. Scandinavian languages and literatures; 21. Romance philology; 22. French language and literature; 23. Spanish language and literature; 24. Italian language and literature; 25. Hebrew; 26. Arabic; 27. Assyrian; 28. Syriac; 29. Ethiopic; 30. Semitic epigraphy; 31. Turkish; 32. Armenian.

In his choice of subjects under this Faculty, the candidate is limited by the regulation that not more than two of the three subjects may be selected from those offered by any one department. A major subject will involve attendance at lectures and seminars amounting to four or more hours weekly; a minor subject will involve attendance of two or more hours weekly.

UNDER THE FACULTY OF POLITICAL SCIENCE

Group I.—History and political philosophy: 1. European history; 2. American history; 3. political philosophy.

Group II.—Public law and comparative jurisprudence: 1. Constitutional law; 2. international law; 3. criminal law; 4. administrative law; 5. comparative jurisprudence.

Group III. — Economics and social science: 1. Political economy and finance; 2. sociology and statistics.

In his choice of subjects under this Faculty, the candidate is limited by the regulation that not more than two of the three subjects may be selected from any one of the above groups, and by the following rules:

Candidates offering European history as the major subject must offer American history as one of the minor subjects, and *vice versa*.

Candidates offering political economy and finance as the major subjects must offer sociology and statistics as one of the minor subjects, and *vice versa*.

Candidates will not be permitted to offer constitutional law alone as the major subject for the degree of Doctor of Philosophy, but must combine with it the course on general international law or on comparative administrative law.

Candidates offering international law, or criminal law, or administrative law as the major subject must take constitutional law as one minor subject.

Candidates will not be permitted to offer criminal law alone as the major subject for the degree of Doctor of Philosophy, but must combine with it the course on general international law.

To be recognized as a major subject for the degree of Master of Arts, the courses selected must aggregate at least two hours per week throughout the year, and must also include attendance at a seminar; for a minor subject for the degree of Master of Arts the attendance at a seminar is not required.

To be recognized as a minor subject for the degree of Doctor of Philosophy, courses must be taken, in addition to the requirements for a minor subject for the degree of Master of Arts, aggregating two hours weekly. All the courses and seminars offered in the major subject must be taken by the candidates for the degree of Doctor of Philosophy.

UNDER THE FACULTY OF PURE SCIENCE

1. Anatomy; 2. astronomy; 3. bacteriology; 4. botany; 5. chemistry; 6. geodesy; 7. geology; 8. lithology; 9. mathematics; 10. mechanics and electro-mechanics; 11. mineralogy; 12. palæontology; 13. physics; 14. physiology; 15. zoölogy.

In his choice of subjects under this Faculty, the candidate is limited by the regulation that no two of the subjects selected may be in any one department, unless the consent of the Faculty thereto shall have first been obtained.

UNDER THE FACULTY OF APPLIED SCIENCE

Mining; metallurgy; engineering (civil, mechanical, electrical, and sanitary); architecture; mechanics, and electro-mechanics.

The Faculty of Applied Science requires that at least one minor subject be taken under the Faculty of Pure Science.

A minor subject may be taken in the same department as the major, but no two minors may be taken in the same department.

5. Each student is given a registration book, which is signed by the professor or instructor in charge of each course of instruction or investigation at the beginning and end of each course. This registration book is to be preserved by the student as evidence of courses attended, and should be submitted to the deans of the several faculties at the end of each year, that the proper credit may

be given for the courses attended, after which the registration book becomes the permanent property of the student.

6 (*a*) Students desiring to be examined for the degree of Master of Arts, Master of Laws, or Doctor of Philosophy shall make application on or before April 1 of the academic year in which the examination is desired, on blanks provided by the University, to the Secretary of the University.

(*b*) Immediately after April 1, the Secretary of the University shall notify the Deans of the Faculties of Political Science, Philosophy, and Pure Science, and also the Bursar, of the names of students applying for examination for higher degrees in each of these three faculties, together with the subjects in which the candidate offers himself for examination and the degree for which he is a candidate.

(*c*) The examination shall be held under the authority and direction of the several Deans.

(*d*) The results of such examinations shall be reported as soon as possible to the Registrar of the University, who shall transmit to the Secretary of the University Council the record of each successful candidate for a degree, as soon as such record is complete.

7. Each candidate for the degree of Master of Arts shall present an essay on some topic previously approved by the professor in charge of his major subject. Before the candidate is admitted to examination the professor in charge of his major subject must have signified his approval of such essay. This essay must be presented not later than May 1 of the academic year in which the examination is to take place. The Faculty of Political Science requires this essay to be a paper read during the year before the seminar of which the candidate is a member.

When the essay has been approved, the candidate shall file with the Librarian of the University a legibly written or typewritten copy of it. This copy is to be written on firm, strong paper, eleven by eight and a half inches, and a space of one and a half inches on the inner margin must be left free from writing.

8. Each candidate for the degree of Doctor of Philosophy shall present a dissertation embodying the result of original investigation and research on some topic previously approved by the professor in charge of the candidate's major subject. When such dissertation has been approved by the said professor, it shall be printed by the candidate, under the direction of the dean of the faculty, and one hundred and fifty copies shall be delivered to the faculty, unless, for reasons of weight, a smaller number be accepted by special action of the University Council. On the title-page of every such dissertation shall be printed the words: "Submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy, in the Faculty of ———, Columbia University."

There shall be appended to each dissertation a statement of the educational institutions that the author has attended, and a list of the degrees and honors conferred upon him, as well as the titles of his previous publications.

All dissertations for the degree of Doctor of Philosophy must be submitted for approval not later than April 1 of the academic year in which examination is desired.

In case of excessive cost and delay in publishing a dissertation which has been approved by a department, and accepted for publication by a reputable journal or scientific or literary association, the degree of Doctor of Philosophy may be conferred before the publication is completed. The facts in every such case concerning the publication are to be certified to the Council by the faculty concerned. In cases where advanced degrees are conferred before the copies of the dissertations are deposited with the Librarian, the diploma is to be withheld until said copies shall be received by the Librarian.

In the Faculty of Political Science, with the consent of the dean and the professor in charge of the candidate's major subject, the examination may be held before the printed dissertation is submitted.

The Faculty of Pure Science requires the dissertation to be printed in the size and form of the Annals or the Memoirs of the New York Academy of Sciences, according to the nature of the subject. Final examination may be granted upon acceptance of the dissertation by the department concerned.

The Faculty of Applied Science requires the dissertation to be printed in the size and style of the School of Mines *Quarterly*, and delivered to the faculty not later than May 1 of the academic year in which the examination is to take place.

9. Every candidate for the degree of Doctor of Philosophy must pass, besides such other examinations as the faculty may require, an oral examination on all three subjects, and must defend his dissertation, in the presence of the entire faculty, or of so many of its members as may desire to attend. The ability to read at sight French and German, to be certified in each case by the dean of the faculty concerned, is required by all the faculties. The Faculties of Philosophy and Political Science ordinarily require also the ability to read Latin at sight, but this requirement may be waived for reasons of weight.

10. Students holding college degrees, who shall have completed with marked distinction one of the regular courses in the School of Law, the School of Medicine, the School of Mines, the School of Chemistry, the School of Engineering, or the School of Architecture, may be recommended for the degree of Master of Arts; provided that in each case the candidate shall have taken additional work, under the direction of the Faculty of Philosophy, the Faculty of Political Science, or the Faculty of Pure Science, to the extent of a minor subject, as recognized by the faculty concerned, for not less than one academic year.

Every such candidate shall present an essay on some topic previously approved by the professor in charge of his minor subject. Before the candidate is admitted to examination the professor in charge of his minor subject must have signified his approval of such essay. This essay must be presented not later than May 1 of the academic year in which the examination is to take place. The Faculty of Political Science requires this essay to be a paper read during the year before the seminar of which the candidate is a member.

When the essay has been approved, the candidate shall file with the Librarian of the University a legibly written or typewritten copy of it. The copy is to be written on firm, strong paper, eleven by eight and a half inches, and a space of one and a half inches on the inner margin must be left free from writing. In cases where advanced degrees are conferred before the copies of the dissertations are deposited with the Librarian, the diploma is to be withheld until said copies shall be received by the Librarian.

11. No student shall continue to be a candidate for the degree of Doctor of Philosophy for a longer period than three years from the time he ceases to be in residence.

Master of Laws

1. Any student who has satisfactorily completed the regular course of study in Columbia College, to the close of the junior year, or in some other college maintaining an equivalent curriculum (every such case of equivalency to be considered on its own merit), shall be entitled to be recommended for the degree of Master of Laws upon certificates from the Faculty of Law and the Faculty of Political Science that he has satisfactorily completed a four-years' course of study under said faculties.

2. Every candidate for the degree of Master of Laws must elect from the subjects offered by said faculties, courses aggregating, in the four years, fifty-two hours per week, and must pass satisfactory examinations upon the subjects selected; provided that not more than thirty-four hours of work may be elected either in the field of private law, or in that of public law, social ethics, history, and economics.

3. Students, otherwise qualified, who have received the degree of Bachelor of Laws from this University after pursuing the full course of study, shall be entitled, upon pursuing for an additional year a course of study of at least thirteen hours per week, under either or both of said faculties, and passing satisfactory examinations therein, to receive the degree of Master of Laws: provided that no student shall receive the degree who has not studied and passed satisfactory examinations in comparative constitutional law, administrative law, Roman law, international law, and in the three courses offered on equity,* and who has not pursued here, or elsewhere, courses of instruction satisfactory to the Faculty of Political Science in history, social ethics, and economics.

4. Each faculty shall determine the order in which the subjects offered by it shall be taken, and the maximum amount of work to be done therein during any one year.

5. Students from other universities, colleges, or law schools, who shall have satisfactorily completed a course of study equivalent to at least one term of thirteen hours per week in the subjects indicated in Section 2, after receiving a bachelor's degree, may be excused from the corresponding number of terms of the four years' residence required at Columbia, provided that in no case shall any one receive the degree of Master of Laws who has not spent at least four years in the study of the said subject in some university, college, or law school; and the decision whether work at another institution shall be accepted as equivalent to work at Columbia shall rest, as far as the studies under the Faculty of Law are concerned, with the Faculty of Law, and as far as the studies under the Faculty of Political Science are concerned, with the Faculty of Political Science. But neither faculty shall admit a student from another university, college, or law school, to examination for the degree of Master of Laws without a residence of at least one year in this University.

* Under this provision students would be allowed, but not required, to take history of European law, conflict of private law, law of municipal corporations, and the law of taxation.

COLUMBIA COLLEGE

The following departments are represented in the Faculty:

ASTRONOMY
BOTANY
CHEMISTRY
COMPARATIVE LITERATURE
ENGLISH
GEOLOGY
GERMANIC LANGUAGES AND LITERATURES
GREEK
HEBREW
HISTORY
LATIN
MATHEMATICS
MECHANICS
PHILOSOPHY, PSYCHOLOGY, ANTHROPOLOGY, AND EDUCATION
PHYSICS
POLITICAL ECONOMY
ROMANCE LANGUAGES AND LITERATURES
ZOÖLOGY

Officers of the Faculty

Ex-Officio Members of the University Council

J. H. Van Amringe, Ph.D., L.H.D., LL.D. .... *Dean*
H. T. Peck, Ph.D., L.H.D. .... *Secretary*

Standing Committees

Committee on Curriculum and Scheme of Attendance

Professor Van Amringe, *Chairman*
"   Mayo-Smith
"   Butler
"   Woodberry
"   Perry

Committee on Admissions

Professor Fiske, *Chairman*
"   Hallock
"   G. R. Carpenter
"   Wheeler
"   Thomas

Committee on Scholarships

Professor Van Amringe, *Chairman*
"   W. H. Carpenter
"   Sloane

Committee on Honors

Professor Peck, *Chairman*
"   Hallock
"   Woodward

The Faculty

Seth Low, LL.D., *President*

J. Howard Van Amringe, Ph.D., L.H.D., LL.D., *Professor of Mathematics*
Ogden N. Rood, A.M., *Professor of Physics*
Charles F. Chandler, Ph.D., M.D., LL.D., *Professor of Chemistry*
John W. Burgess, Ph.D., LL.D., *Professor of Political Science and Constitutional Law*

RICHMOND MAYO-SMITH, Ph.D., *Professor of Political Economy and Social Science*

THOMAS R. PRICE, LL.D., *Professor of the English Language and Literature*

JOHN KROM REES, E.M., Ph.D., *Professor of Astronomy*

H. T. PECK, Ph.D., L.H.D., *Professor of the Latin Language and Literature*

NICHOLAS MURRAY BUTLER, Ph.D., LL.D., *Professor of Philosophy and Education*

EDWIN R. A. SELIGMAN, LL.B., Ph.D., *Professor of Political Economy and Finance*

WILLIAM H. CARPENTER, Ph.D., *Professor of Germanic Philology*

ADOLPHE COHN, LL.B., A.M., *Professor of the Romance Languages and Literatures*

GEORGE EDWARD WOODBERRY, A.B., *Professor of Comparative Literature*

EDWARD DELAVAN PERRY, Ph.D., *Jay Professor of the Greek Language and Literature*

A. V. WILLIAMS JACKSON, L.H.D., Ph.D., *Professor of the Indo-Iranian Languages*

RICHARD J. H. GOTTHEIL, Ph.D., *Professor of Rabbinical Literature and the Semitic Languages*

WILLIAM A. DUNNING, Ph.D., *Professor of History*

HENRY F. OSBORN, D.Sc., *Da Costa Professor of Zoölogy*

JAMES F. KEMP, E.M., *Professor of Geology*

EDMUND B. WILSON, Ph.D., *Professor of Zoölogy*

WILLIAM HALLOCK, Ph.D., *Adjunct Professor of Physics*

ROBERT S. WOODWARD, C.E., Ph.D., *Professor of Mechanics and Mathematical Physics*

GEORGE R. CARPENTER, A.B., *Professor of Rhetoric and English Composition*

HENRY A. TODD, Ph.D., *Professor of Romance Philology*

THOMAS SCOTT FISKE, Ph.D., *Professor of Mathematics*

JAMES RIGNALL WHEELER, Ph.D., *Professor of Greek*

JAMES C. EGBERT, Jr., Ph.D., *Professor of Roman Archæology and Epigraphy*

JAMES H. HYSLOP, Ph.D., *Professor of Logic and Ethics*

CARLO L. SPERANZA, A.M., B. ès L., *Adjunct Professor of the Romance Languages and Literatures*

CALVIN, THOMAS, A.M., *Gebhard Professor of the Germanic Languages and Literatures*

WILLIAM MILLIGAN SLOANE, Ph.D., LL.D., *Seth Low Professor of History*

LUCIEN M. UNDERWOOD, Ph.D., *Professor of Botany*

CHARLES E. PELLEW, E.M., *Adjunct Professor of Chemistry*

BRANDER MATTHEWS, LL.B., D.C.L., *Professor of Dramatic Literature*

HERBERT G. LORD, A.M., *Professor of Philosophy*

NELSON GLENN MCCREA, Ph.D., *Adjunct Professor of Latin*

WATSON L. SAVAGE, A.M., M.D., *Director of the Gymnasium*

Emeritus Officer

JOHN D. QUACKENBOS, A.M., M.D., *Emeritus Professor of Rhetoric*

For details as to other officers of instruction see departmental statements.

ADMISSION

The Committee on Admissions has charge of everything relating to this subject.

1. Candidates for admission to the Freshman class, at its formation, must be at least fifteen years of age; and for admission to advanced standing there is required a corresponding increase of age; but this rule may be dispensed with when, in the opinion of the Committee on Admissions, there are sufficient reasons to justify its relaxation.

Every candidate must, before admission, present a certificate of good moral character from his last teacher, or from some citizen in good standing, and students from other institutions must bring certificates of honorable dismission.

Requirements for Admission

2. Every candidate for admission to the Freshman class is required at the entrance examinations (see page 15) to offer subjects amounting to fifteen points * as indicated below.

The candidate *must* offer

English (page 18)	counting	3 points
Elementary Mathematics (page 24)	“	3 “

The candidate may offer any of the following subjects without other restriction than that to offer an advanced subject will involve offering either at the same time or earlier the corresponding elementary subject:

Elementary Latin (page 23)	counting	4 points
Elementary Greek (page 21)	“	3 “
Elementary History (page 22)	“	1 point
Advanced Latin (page 24)	“	1 “
Advanced Greek (page 22)	“	1 “
Advanced French (page 20)	“	1 “
Advanced German (page 20)	“	1 “
Advanced History (page 22)	“	1 “
Advanced Mathematics (page 25)	“	1 “
Advanced Physics (page 25)	“	1 “

The candidate may offer not more than 4 points in all from the three subjects following:

Elementary French (page 19)	counting	2 points
Elementary German (page 20)	“	2 “
Spanish (page 26)	“	2 “

The candidate may offer not more than 2 points in all from the five subjects following:

Elementary Physics (page 25)	counting	1 point
Chemistry (page 17)	“	1 “
Botany (page 17)	“	1 “
Physiography (page 26)	“	1 “
Zoölogy (page 26)	“	1 “

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* The several subjects are stated in terms of units; the unit is a course of five periods weekly throughout an academic year of the preparatory school; the subjects are assigned units in accordance with the time required to prepare adequately upon them for college entrance.

For information regarding the time and place at which entrance examinations are held, regulations regarding division of examinations, examinations outside of New York, application blank, and examination fee, see pages 16, 27, and 28 respectively.

Certificates in Lieu of Entrance Examinations

3. Columbia College accepts, in lieu of its entrance examinations, no credentials of any sort except the Regents' Academic Diploma * and the certificates of universities and colleges in good standing. These credentials are accepted only for the ground which they specifically cover.

All certificates offered in lieu of entrance examinations must be sent to the chairman of the College Committee on Admissions, at least one week before the first day of the entrance examinations. The names of those candidates whose certificates are accepted in whole or in part will be posted on the bulletin board at least one day in advance of the beginning of the examinations.

The separate pass-cards, the Academic Equivalent Certificate, and the several other certificates issued by the Regents of the State of New York are not accepted by the College in lieu of examinations.

The certificates of the preparatory or high-school departments of universities and colleges are not accepted by the College.

Candidates must take the regular entrance examinations in the subjects in which their certificates are not deemed adequate.

Report of Entrance Examinations

4. The Committee on Admissions will report to the Dean not later than one week after the conclusion of the entrance examinations in June the names of those candidates who, having passed a satisfactory examination, may be admitted with or without conditions, of those who must present themselves for re-examination in September, and of those who have been rejected.

The Committee on Admissions will report to the Dean not later than one week after the conclusion of the entrance examinations in September the names of those candidates who, upon a final showing, may be admitted with or without conditions, and of those who have been rejected.

Except for reasons of weight, satisfactory to the Committee on Admissions, the results of an entrance examination will not be allowed to stand to the credit of a candidate for a longer period than sixteen months.

Admission to Advanced Standing

5. Candidates for admission from other colleges, and those desiring to be admitted to advanced standing on examination, must make application in writing to the College Committee on Admissions. Proper blanks for the purpose

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* Every Regents' Academic Diploma is considered as covering the entrance requirement in English. No Regents' Academic Diploma will be accepted in lieu of the entrance examination in French unless it covers the complete three-years high-school course in French recognized by the Regents. Similarly, no Regents' Academic Diploma will be accepted in lieu of the entrance examination in German unless it covers the complete three-years high-school course in German. A Regents' Academic Diploma, to be accepted in lieu of all parts of the examination in Latin or of the examination in Greek, must specifically cover, among other things, sight reading and prose composition. In the case of the natural sciences, a Regents' Academic Diploma will not be accepted for the required laboratory work.

may be obtained from the Registrar. The application should be made at least one week before the first day of the September entrance examinations.

Each candidate for admission to advanced standing must show that he has attained proficiency in the equivalent of

1. The requirements for admission to the Freshman class.
2. All the prescribed studies already pursued by the class to which he seeks admission.
3. As many elective studies as he would have pursued if he had entered the class at the beginning of the Freshman year.

A candidate may be admitted notwithstanding deficiencies in some of these studies, but no candidate will be recommended for the A.B. degree until he shall have brought all his studies up to the point required for that degree.

Each candidate from another college is expected to furnish official statements of his record in his various college studies, and letters or other evidence showing the opinion of his instructors in regard to his scholarship and character. He should also submit a catalogue or announcement of the college that he leaves, in which are plainly marked every requirement for admission and every course of instruction for which he has received credit.

No applicant will be allowed to enter the Senior class as a candidate for the degree of Bachelor of Arts after October 15 in any year.

Special Students

6. Special courses of study are offered by the College to young men, of proper age and character, who wish, without reference to any degree, to make a serious study of any special subject or group of subjects. Each candidate for admission to such special courses must make application in writing, and show evidence of good character and of special fitness for each study that he wishes to pursue. The application should be made at least one week before the first day of the entrance examinations. Proper blanks for the purpose may be obtained from the Registrar.

Each candidate will be examined at the time of the entrance examinations

1. In English composition, and such other studies as the Committee on Admissions may direct.
2. In each special study which he desires to pursue, to ascertain whether he is competent to enter upon the course.

In general, it is required that candidates who do not come from another college shall take the regular entrance examinations (if there are any) in each department in which they wish to pursue courses.

Except for reasons of weight, satisfactory to the Committee on Admissions, no one will be received as a special student who is less than eighteen years of age, or has, within ten months of the time of his application, been rejected as a regular student, or has, within that time, become deficient as a regular student. No one will be admitted as a special student who wishes merely to pursue elementary subjects included among the requirements for admission to the College or Schools of Applied Science.

7. In the courses which they severally pursue special students will be held to the observance of the same regulations as to attendance, examination, proficiency, and deficiency as regular students.

Entrance Conditions and Probation

8. Students admitted conditionally to the Freshman class at the beginning of the academic year will be held under probation till the end of the first half-year.

Not later than Tuesday of the second week following the Christmas holidays, the head of each department in which students on probation attend will make to the Dean a special report of progress in the case of each such student. The Dean will, as soon as practicable, and not later than the end of the half-year, decide as to each student on probation whether he shall be dropped from the roll of the College, or have his period of probation extended.

9. If any member of the Freshman class shall receive at the mid-year or the concluding examination a grade in scholarship of C, or higher, in any department, this grade will be regarded as removing any entrance condition that may be recorded against him in that department.

Any member of the Freshman class conditioned at entrance must make good by examination every condition that is not removed under the operation of the foregoing provision. He should present himself for this purpose at the entrance examinations in June or September of the year following his admission.

10. No student will be admitted to the Sophomore class until he shall have satisfied all his entrance conditions.

Matriculation, Registration, and Enrolment

Matriculation consists in filing with the Registrar the information described on page 28. A student is required to matriculate but once, upon first connecting himself with the University. Registration consists in furnishing to the Registrar, upon blanks provided for the purpose, such information as the University may request. Enrolment consists in filing, upon blanks provided for the purpose, a statement of the courses which a student may be authorized to pursue.

For the regulations prescribed for all students see page 28. The following regulations are also prescribed for students in the College:

11. At the opening of the year, all students are required to present themselves at the office of the Registrar, 109 Library, for registration and enrolment on the Wednesday, Thursday, or Friday of the week preceding the first Monday in October of each year. Registration and enrolment at a later date are permitted to candidates who obtain the written consent of the Dean, satisfactory cause for the delay having been shown. Credit for attendance will date from the first Monday in October. All students will be held strictly accountable for absences incurred owing to enrolment at a later date, unless excused by the Dean.

Fees

(See page 29)

Scholarships

(See page 40)

Examinations in Course

12. Two examinations of all the classes are held every year, one beginning on the last Monday in January, and the other on the Monday of the third week

preceding Commencement. The former is called the mid-year examination; the latter, the final examination. Any department may omit the mid-year examination in some or all of its courses for Seniors, notice of such intended omission to be sent to the Dean on or before December 1 preceding. It is the privilege of any department to announce that, in some or all of its courses, the results of the mid-year examination will be tentative only, the grades given after the final examination applying to the whole year.

13. Any student who shall have been absent from more than ten per cent. of the exercises in any course during a single half-year shall not be entitled to examination in that course.

14. Every student is expected and required to keep an account of his absences, and, should he exceed the limit allowed in any course, he must present to the Dean, during the week preceding the stated examination, satisfactory explanation of all his absences, or be debarred from the examination.

(*a*) A student absent from a mid-year or final examination in any course will be accounted deficient in that course.

(*b*) A student reported, at the close of the year, in grade F in more than one course, or in grade F in one course and in grade D in more than two other courses, will be dropped from the roll of his class.

(*c*) A student dropped from the roll of his class will not be permitted to attend any of the exercises of the said class without the consent of the Dean, given for reasons of weight; but he may enter the next succeeding class and pursue the course or courses in which his deficiency exists, or, in case of elective courses and with the consent of the Dean, other course or courses equivalent thereto in time, and present himself for examination in such course or courses with that class. Upon failing with that class, in any repeated or substituted course, his name will be dropped from the roll of the College. No student dropped from the roll of his class or of the College under the provisions of this section will be accepted as a special student.

(*d*) No student will be promoted to the Junior class who is deficient in any course of the Freshman class; and no student will be promoted to the Senior class who is deficient in any course of the Sophomore class.

15. Examinations to enable deficient or debarred students of all classes to make good their deficiencies are held within the two weeks immediately preceding the opening of the College in October; and in addition, for members of the Senior class only, during the first week in May. Examinations at times other than here specified are not held except upon order of the Dean, given for reasons of weight.

Proficiency and Deficiency

16. At the close of every half-year, and after the stated examination has been held, each officer of instruction will report to the Dean a list of all the students in his several courses, classifying them in five grades, namely, A, B, C, D, F, according as their work in the course has been excellent, fair, poor, or a failure. Each student's record, up to his Senior year, will be transmitted to his parent or guardian by the Dean at the close of each half-year.

17. Students reported in grade F in any course will be deemed deficient in that course, and required to pass another examination in it at the time fixed for

the special examination for debarred and deficient students, unless, for reasons of weight, the Dean shall otherwise direct.

18. Students reported in grade D in any course must be warned by the instructor in charge thereof that their work is so unsatisfactory that, unless improved, it may result in their being found deficient at the close of the second half-year.

19. Students reported in grade D in two or more courses will be warned by the Dean that their record is not satisfactory, and that, unless improved, it may be found necessary to require them to take the courses a second time or to substitute other courses.

20. A student reported in grade D in four or more courses at the close of the year, and not reported in grade A or B in any course, or a student reported in grade F in one course and in grade D in two other courses, will not be permitted to go on with his class without the consent of the Dean, given for reasons of weight, nor will he be accepted as a special student; but he may enter the next succeeding class.

On and after July 1, 1901, the foregoing regulations as to examinations and proficiency and deficiency will be superseded by the following:

Examinations in Course

Two examinations of all the classes are held every year, one beginning on the last Monday in January, and the other on the Monday of the third week preceding Commencement. The former is called the mid-year examination; the latter the final examination. Any department may omit the mid-year examination in some or all of its courses for Seniors, notice of such intended omission to be sent to the Dean on or before December 1 preceding. It is the privilege of any department to announce that, in some or all of its courses, the results of the mid-year examination will be tentative only, the grades given after the final examination applying to the whole year.

Any student who shall have been absent from more than ten per cent. of the exercises in any course during a single half-year shall not be entitled to examination in that course.

Every student is expected and required to keep an account of his absences, and, should he exceed the limit allowed in any course, he must present to the Dean, during the week preceding the stated examination, satisfactory explanation of all his absences, or be debarred from the examination.

Delinquent examinations, to enable deficient or debarred students of all classes to make good their deficiencies, are held within the two weeks immediately preceding the opening of the College in October; and in addition, for members of the Senior class only, during the first week in May.

The examinations provided for in the foregoing sections are *stated examinations*. Examinations of students in the College other than these, and held by special permission of the Dean, are *special examinations*.

A student found deficient in any subject at a stated examination will not be allowed a special examination in that subject.

A student absent from a stated examination in any subject will not be allowed a special examination in that subject, except that, if the absence was due to unavoidable circumstances, the Dean may, on proper written certification to him of the circumstances, grant a special examination.

The fee for a special examination is five dollars, which must be paid by the student before being admitted to the examination.

If a student has special examinations in several subjects granted him, under one permit from the Dean specifying each subject, one fee of five dollars shall cover them all.

Proficiency and Deficiency

At the close of every half-year, and after the stated examination has been held, each officer of instruction will report to the Dean a list of all the students in his several courses, classifying them in five grades, namely, A, B, C, D, F, according as their work in the course has been excellent, good, fair, poor, or a failure. Each student's record, up to his Senior year, will be transmitted to his parent or guardian by the Dean at the close of each half-year.

A student reported in grade F in any course, or a student absent from a mid-year or final examination in any course, will be accounted deficient in that course, and required to pass another examination in it at the time fixed for the stated examination of debarred and deficient students, unless, for reasons of weight, the Dean shall otherwise direct.

A student reported at the close of the first half-year in grade D in any course must be warned by the instructor in charge thereof that his work is so unsatisfactory that, unless improved, it may result in his being found deficient at the close of the second half-year.

A student reported in grade D in two or more courses may be required by the Dean to take the courses a second time or to substitute other courses.

No student may be advanced from the Freshman to the Sophomore class until he shall (*a*) have satisfied all the requirements for entrance, and (*b*) have not less than nine points to his credit.

No student may be advanced from the Sophomore to the Junior class until he shall have not less than twenty-four points to his credit.

No student may be advanced from the Junior to the Senior class until he shall (*a*) have accomplished all the studies of the course specifically required in the first three years, and (*b*) have not less than forty-five points to his credit.

For advancement under the foregoing sections, a student must be reported in a grade above D in the greater number of the courses giving him the requisite total of points; failing which he shall be dropped from the roll of his class, unless the Dean, for reasons of weight, shall otherwise determine. A student dropped from the roll of his class will not be permitted to attend any of the exercises of the said class without the consent of the Dean, given for reasons of weight; but he may enter the next succeeding class and pursue the course or courses in which his deficiency exists, or in case of elective courses and with the consent of the Dean, other course or courses equivalent thereto in time, and present himself for examination in such course or courses with that class. No student dropped from the roll of his class under the provisions of this section will be accepted as a special student.

Should a student fail of advancement in two successive years, he shall be dropped from the roll of the College, unless, for reasons of weight, the Dean shall otherwise determine. No student dropped from the roll of the College under the provisions of this section will be accepted as a special student.

In all cases, the requirements for advancement from class to class must be satisfied before the first Monday in October.

General Honors

21. *General Honors* are of two grades, Highest General Honors and General Honors, and are assigned not later than July 1 of each year, without application, to students who are not holders of scholarships, under the following conditions:

Highest General Honors are awarded to students whose work in the previous college year entitles them to high academic distinction.

General Honors are assigned to students of marked excellence who have not won Highest General Honors.

Departmental Honors

22. Departmental Honors are awarded at the end of the second year, the end of the third year, and the end of the course, and are known respectively as Sophomore Honors, Junior Honors, and Final Honors.

Sophomore Honors are awarded in classics, Germanic languages and literatures, Romance languages and literatures, English, comparative literature, and in mathematics.

Junior Honors are awarded in classics, Germanic languages and literatures, Romance languages and literatures, English, comparative literature, mathematics, physics and chemistry, and in history.

Final Honors are awarded in classics, Germanic languages and literatures, Romance languages and literatures, English, comparative literature, mathematics, physics and chemistry, zoölogy and botany, history, economics and social science, and in philosophy.

23. (*a*) No scholarship, prize, or other honor will be awarded in any course or department to any student who is reported in a grade below C in any other course or department during the year in which he is a candidate for such scholarship, prize, or honor.

(*b*) Each student to whom honors may be awarded in any department will receive, immediately after Commencement, a certificate of such award, under the seal of the College and bearing the signature of the President and the Dean.

For particulars, see special Announcement of the College.

Prizes

(See page 43)

Graduation Theses

24. Each candidate for graduation shall, with the advice and consent of the instructor in charge of one of the courses in which he has studied, or is studying, select for thesis, or essay, some subject connected with that course, and, on or before December 15, communicate his selection to the Dean for approval. Under such guidance and with such help as the instructor may deem it right to give him, he shall complete the thesis, or essay, and submit it to the Dean on or before April 2 of each year. This thesis, or essay, shall be judged by the head of the department in which the chosen subject lies; and the judgment shall be passed upon the merit of the thesis, or essay, both in its substance and in its style, and shall be reported in writing by the head of the department to the Dean. In his return to the Dean upon a graduation thesis the examining officer shall report:

1. A grade as to substance;
2. A grade as to style;
3. A grade as to its general merit.

Each thesis shall contain, as appendix, a list of authorities that have been used. It shall contain at least two thousand (2000) words, unless there be special reasons for the reduced length; and it shall be retained as the property of the College, in charge of the Librarian.

If any student fail to comply with these requirements, or if his thesis, or essay, be rejected, he shall not be recommended to the Trustees for graduation.

The graduating theses must be written on firm, strong paper, eleven by eight and one half inches in dimensions, and a space of one and one half inches on the inner margin must be left free from writing.

Honorable Dismission

25. An honorable discharge shall always be granted to any student in good standing, who may desire to withdraw from the College; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian, given in writing to the Dean.

Students are requested, in case of withdrawal during the academic year, to file a notice thereof at the office of the Registrar, who will on application provide the blank form for this purpose.

COURSE OF STUDY

The attention of students is called to the following regulations relating to the selection of studies and to the requirements for the degree of Bachelor of Arts.

26. Candidates for the degree of Bachelor of Arts are required to present courses making a total of sixty points, each point having the value of a subject pursued one hour a week for one academic year, except that laboratory or drawing-academy hours shall be counted for one half of the number of hours actually occupied. Not less than twelve, nor more than eighteen, points may be presented in any one year without the consent of the Dean. No one-hour course, unless taken in connection with and as a supplement to a cognate course, will be allowed. To the end of his Junior year, a student must always pursue not fewer than three courses having a value of at least three points each. The required gymnasium work of the Freshman and Sophomore years must also be satisfactorily completed.

The courses necessary to meet the above requirement may be chosen by the student at will from the courses announced each year, subject to the restrictions named in connection with each course, and to the general restriction that the following studies are prescribed:

Prescribed Studies

English:

English **A**, 3 hours, Freshman year.
English **B**, 2 hours, Sophomore year.

Prescribed for all students.

Latin and Greek:

Latin **A** or **B**, or Greek **B**, 3 hours, Freshman year.

Prescribed for students who offer Elementary Latin and Greek, but not Advanced Latin or Greek, for admission.

Latin **A** or **B**, 3 hours, Freshman year.

Prescribed for students who offer Elementary but not Advanced Latin for admission.

Latin **X**, 5 hours, Freshman year.
Latin **Y**, 3 hours, Sophomore year.
Latin **Z**, 3 hours, Junior year.

Prescribed for students who do not offer Elementary Latin for admission.

French:

French **A**, 3 hours, Freshman year.

Prescribed (unless French 1 be elected) for students who do not offer Elementary French for admission.

German:

German **A**, 3 hours, Freshman year.

Prescribed (unless German 1 be elected) for students who do not offer Elementary German for admission.

Mathematics:

Mathematics **A**, 3 hours, Freshman year.

Prescribed for students who do not offer Advanced Mathematics for admission.

History:

History **A**, 3 hours, Freshman or Sophomore year.

Prescribed for students who do not offer Advanced History for admission.

Psychology:

Pyschology **A**, 3 hours, first half Junior year.

Prescribed for all Juniors.

Economics:

Economics **A**, 3 hours, second half Junior year.

Prescribed for all Juniors.

Natural Science:

Physics 1, 3 hours; or Chemistry 1, 4 hours; or Botany 1, 3 hours. Freshman, Sophomore, or Junior year.

Prescribed for students who do not offer a natural science for admission.

27. In making out their list of electives, students are confined to the courses given as open to them in the departmental and other statements contained in this Announcement of the College. They must avoid conflicts of courses at the same hour, and for that purpose should consult the hour scheme.

Students just entering must give notice, at the time of registration, of the elective courses chosen by them.

Students in the College are required, on or before May 20, to give notice to the Dean, upon blanks to be procured at the office of the Registrar, of their choice of elective courses. Special attention is called to this requirement, in order to avoid confusion and possible embarrassment to the student.

Freshmen are required to be in attendance at the Gymnasium on Monday and Wednesday at 11.30; Sophomores at 12.30.

28. Changes of electives will be allowed by the Dean, for reasons of weight stated to him in writing, up to but not later than the fourth Saturday in October for the first term and the third Saturday in February for the second term.

29. No student may take more than four hours' work, not including laboratory work or drawing, on the same day, or more than six hours a week in any department, without the consent of the Dean.

30. The Dean and the head of the department concerned may permit any study prescribed for the degree of Bachelor of Arts to be taken as an elective in an earlier year than that for which it is set down.

31. Elective courses are offered subject to withdrawal if elected by fewer than three students.

TEACHERS COLLEGE DIPLOMA

32. The course of study in Teachers College for intending teachers in secondary schools is so arranged that undergraduate students of Columbia College and of Barnard College may, if they so desire, obtain the Diploma of Teachers College at the time of receiving the degree of Bachelor of Arts.

For any further information the special Announcement of the College may be consulted.

REGISTER OF STUDENTS

SENIOR CLASS

Armstrong, David	Rahway, N. J.
Baker, Edward Wood	(Mhtn) New York City
Bandler, Maurice Edward	(Mhtn) New York City
Barker, Stephen	(Mhtn) New York City
Beers, William Francis, Jr	Galveston, Tex.
Bensel, William Aitken	(Mhtn) New York City
Boehm, August Abraham	(Mhtn) New York City
Boese, William Henry	(Mhtn) New York City
Bonsall, Victor Fitch Mount	(Mhtn) New York City
Boone, Elliot Williams	(Mhtn) New York City
† Bowdish, Lewis F.	(Q) New York City
Bowne, Samuel Winter	(Mhtn) New York City
Brower, Farrand Dodd	(Mhtn) New York City
Browne, Squire Fred	Kalamazoo, Mich.
Buchler, William Paul	(Mhtn) New York City
Bühler, Joseph Stettenheim	Columbus, Ga.
Bulkley, Henry Duncan	(Mhtn) New York City
Burrows, Waters Field	Elizabeth, N. J.
Byron, Thomas Patrick	Bradford, Pa.
Cardozo, Michael Hart, Jr	(Mhtn) New York City
Chamberlain, Raymond, Ph.B., *Wesleyan University*, *Illinois*	Milton, N. J.
de Beaumont, Victor Ernest	(Mhtn) New York City
Depew, Chauncey Mitchell, Jr	(Mhtn) New York City
Donnellan, George Laurence	(Mhtn) New York City
Dressler, William Bernard	(Mhtn) New York City
Drucker, Aaron Phinius	(Mhtn) New York City
Duden, Herman, Jr	(Br) New York City
Durham, Knowlton	(Mhtn) New York City
Eastmond, Charles	(Bklyn) New York City
Edwards, Elisha Jay, Jr	Greenwich, Conn.
* Elliman, Kenneth Benbow	(Q) New York City
English, Aden Alnerian	(Mhtn) New York City
English, Paul Allen	(Mhtn) New York City
Ernst, Arthur Ogden	(Mhtn) New York City
Esser, J. Henry	Mt. Vernon, N. Y.

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* Also a candidate for the Secondary Diploma (*Teachers College*).

† Also a candidate for the Elementary Diploma (*Teachers College*).

Falconer, Bruce McLean	(Mhtn) New York City
* Forbes, Charles Savage	(Mhtn) New York City
Forsch, Albert	(Mhtn) New York City
Foster, George Kenyon	Normal, Ill.
Frank, Milton L.	(Mhtn) New York City
Grace, Walter Henry	Kent, England
Grant, Henry Roderick	(Mhtn) New York City
Gray, James	(Bklyn) New York City
Gulick, Herbert De Hart	(Mhtn) New York City
Gumm, Harris Harold	Indianapolis, Ind.
Halsey, Francis Rebone	(Q) New York City
Hanson, Hans Olaf	(Mhtn) New York City
Harpending, Samuel Asbury	Dundee, N. Y.
Harrison, Julian Collier	(Bklyn) New York City
Havey, Marshall Lawrence	(Mhtn) New York City
Haydock, Charles Edward	(Mhtn) New York City
Heimann, W. J.	(Mhtn) New York City
* Heuser, Frederick William Justus	(Bklyn) New York City
Jackson, John Gillespie	Middletown, Conn.
Jacocks, Harold Huntington	(Mhtn) New York City
Keeler, George Beckworth	(Bklyn) New York City
Kohn, Achilles Herrman	(Mhtn) New York City
Korn, Harold	(Mhtn) New York City
Lederer, Allison Michael	Ridgewood, N. J.
Lorenz, Karl Kumler	Dayton, O.
* Lynch, John Kenny	(Mhtn) New York City
McDonnell, James Francis	(Mhtn) New York City
McKeon, Peter Joseph	(Mhtn) New York City
* Mattice, Harold Allison	(Br) New York City
Meyer, Rutherford Birchard	(Mhtn) New York City
Mitchell, Edward Bedinger	(Q) New York City
Moore, James Bly	Pearl River, N. Y.
Mosenthal, Walter Joseph	(Mhtn) New York City
Nash, Stephen Payn	(Mhtn) New York City
Palmer, Archie Wheeler	East Orange, N. J.
* Pegram, Robert Bruce	(Mhtn) New York City
Renninger, Warren D.	Zieglerville, Pa.
Senftner, Alfred Dwight	(Mhtn) New York City
Sheerin, James	Sing Sing, N. Y.
Shepard, Woolsey Adams	(Mhtn) New York City
Siegel, Harold Lawrence	Salt Lake City, Utah
Small, Herbert Fedor	(Mhtn) New York City
Smith, John Boyce, Jr.	(Mhtn) New York City
Spiro, Walter Jesse	(Mhtn) New York City
Stewart, Vernon Champney	Canton, Ill.
Tavenner, Eugene, A.B., *University of Nashville*	Parkersburg, Va.

* Also a candidate for the Secondary Diploma (*Teachers College*).

Van Cise, William Marsh	Summit, N. J.
Ward, Egbert Hammond Pinneo	White Plains, N. Y.
Weir, William Nicholas	Carmel, N. Y.
Wetherhorn, Henry	(Mhtn) New York City
White, Robert Hooper	(Q) New York City
Williams, James Thomas, Jr	Greenville, S. C.
Wise, Harry Morris	(Mhtn) New York City
Woodruff, Lorande Loss	(Mhtn) New York City
Senior Class	89

JUNIOR CLASS

Atkins, George Chew	Bayonne, N. J.
Bancroft, James	Winchester, Mass.
Bartow, Clarence Whittemore	(Q) New York City
Bassett, James	(Mhtn) New York City
Blakely, Edward Bradford	(Mhtn) New York City
Bradley, Allan Beach Arnold	(Mhtn) New York City
Brown, Harvey Scott	Cleveland, O.
Budington, Ernest Gunton	(Bklyn) New York City
Bullard, Oscar	Helena, Mont.
Caldwell, Armour	(Bklyn) New York City
Carey, Ralph Whitney	(Mhtn) New York City
Carter, Jarvis Pomeroy	(Mhtn) New York City
Clark, Franklin Mortimer	(Mhtn) New York City
Cowen, Harry Gabriel	(Mhtn) New York City
Danton, George Henry	Lyndhurst, N. J.
Delgado, Frederick Pearce	(Mhtn) New York City
Dillingham, Paul Shipman	Montpelier, Vt.
Duden, Frederick Henry	Bronxville, N. Y.
Faile, Kenneth Crane	(Mhtn) New York City
Fisk, Clinton Earle	Jersey City, N. J.
Fitch, John Knowles	Passaic, N. J.
Ford, Harold Edward	(R) New York City
Gerster, John Carl Arpad	(Mhtn) New York City
Glenney, Walter Lester	Plainfield, N. J.
Haas, George Christian Otto	(Mhtn) New York City
Haberman, Julius Victor	(Mhtn) New York City
Halsey, Harold Van Wyck	(Q) New York City
Halstead, Kenneth Burt	(Bklyn) New York City
Hannah, Herbert Leslie	(Mhtn) New York City
Harper, James, Jr	(Mhtn) New York City
Hays, Arthur Garfield	(Mhtn) New York City
Hays, Harold M	(Mhtn) New York City
Hellman, Alfred Myer	(Mhtn) New York City
Heroy, James Harold	(Mhtn) New York City
Hincks, Robert Beresford	Long Branch, N. J.
Hogan, Richard	(Mhtn) New York City

Hogan, Thomas	(Mhtn) New York City
Holland, Harry Steers	(Mhtn) New York City
Hopkins, Joseph Gardner	(Bklyn) New York City
Hunt, Perry Dexter	De Wittville, N. Y.
Huntting, George Hammond	(Bklyn) New York City
Hutton, Arthur Lefferts	(Mhtn) New York City
Iglehart, Charles Wheeler	Newburgh, N. Y.
Jenkins, Burke Pritchard	(Mhtn) New York City
Kelly, Richard	(Mhtn) New York City
Krumwilde, Charles, Jr	(Mhtn) New York City
Langs, John Pierce	Niagara Falls, N. Y.
Lawrence, Alfred Stratton	Concord, N. Y.
Lawson, William Wheelock	(Mhtn) New York City
Ledoux, Louis Vernon	(Mhtn) New York City
Lewy, Harry Mier	Galveston, Tex.
Lieb, Charles Christian	(Mhtn) New York City
Littell, Robert Jones	Summit, N. J.
Lockwood, Samuel Pierson	Yonkers, N. Y.
Mac Intyre, Clifford Barnett	(Mhtn) New York City
Mahan, Lyle Evans	(Mhtn) New York City
Meeks, Clarence Gardner	Union Hill, N. J.
Merrell, Howard Brown	Upper Montclair, N. J.
Meyers, Reuben Alfonso	(Mhtn) New York City
Middleton, George	(Mhtn) New York City
Nesbit, William Marsiglia	(Mhtn) New York City
Oppenheimer, Frederick G	San Antonio, Tex.
Ottenberg, Reuben	(Mhtn) New York City
Pell, Walden	(Mhtn) New York City
Perrine, William Woodward, Jr	(Mhtn) New York City
Phillips, Louis	(Mhtn) New York City
Pomier, Henry Le Brun	Toledo, O.
Prince, Henry Starr	(Bklyn) New York City
Proctor, David Gould	(Mhtn) New York City
Rhoades, Lyman, Jr	(Mhtn) New York City
Rose, Charles Reseau	South Amboy, N. J.
* Ross, Herbert Weed	Newark, N. J.
St. John, Theodore Raymond	Centre Brunswick, N. Y.
Schuster, Edward	(Mhtn) New York City
Sewall, Frank Houghton	Jersey City, N. J.
Shoemaker, William Brock	(Mhtn) New York City
Smith, Deming Spencer	(Mhtn) New York City
Smith, Henry Kirkland	Ilion, N. Y.
Snodgrass, Rhey T	Plainfield, N. J.
Southack, John William	(Mhtn) New York City
Spence, Harold Tuthill	(Mhtn) New York City
Spencer, Joseph Whittlesey	(Mhtn) New York City

* Also a candidate for the Secondary Diploma (*Teachers College*).

Spicer, Charles Clyde	Colorado Springs, Colo.
Spiegelberg, Sidney Lehman	(Mhtn) New York City
Stevenson, Maxwell	(Mhtn) New York City
Strebeigh, Robert Lefferts	(Mhtn) New York City
Sturtevant, Horace Richmond	(Mhtn) New York City
Tinker, Edward Larocque	(Mhtn) New York City
Ward, Gilbert Oakley	(Mhtn) New York City
Waters, Spencer	(Mhtn) New York City
West, Henry James	Garnerville, N. Y.
Wharton, William Parker	Howard, Pa.
Wilson, Stanley Kidder	(Mhtn) New York City
Winslow, Archibald Spiers	(Mhtn) New York City
Wise, Henry Edward	(Mhtn) New York City
Wooster, Floyd Rider	Walden, N. Y.
Wright, Avery Skinner	Oswego, N. Y.
Yohannan, Malcolm	(Mhtn) New York City
Junior Class	98

SOPHOMORE CLASS

Abbott, Clinton Gilbert	(Mhtn) New York City
Agate, Frederic Joseph	Yonkers, N. Y.
Allen, William Fitch	Oswego, N. Y.
Andrews, William Almon	Elba, N. Y.
Ansorge, Martin Charles	(Mhtn) New York City
Asch, David	(Mhtn) New York City
Bacon, Daniel Read	Goshen, N. Y.
Bambach, George Frederick	(Mhtn) New York City
Barnes, Nathaniel Waring	Newburgh, N. Y.
Bechert, Alexander Otto	(Bklyn) New York City
Bigongiari, Dino	(Bklyn) New York City
Boisse, Pierre Seth	(Mhtn) New York City
Brinckerhoff, Herbert Corlies	Mt. Vernon, N. Y.
Bruce, Edward Bright	Yonkers, N. Y.
Brussel, Lawrence Maurice	(Mhtn) New York City
Butler, George Henry, Jr.	(Mhtn) New York City
Casamajor, Louis	(Bklyn) New York City
Colie, Dayton	E. Orange, N. J.
Colie, Edward Martin, Jr.	E. Orange, N. J.
Comstock, William Phillips	(Mhtn) New York City
Crowell, John Whiting	(Q) New York City
Dana, Charles Anderson	(Mhtn) New York City
Davis, Albert	(Bklyn) New York City
Dodge, Marcellus Hartley	(Mhtn) New York City
Dyrsen, Harry Hamman	(Mhtn) New York City
Earle, Victor de La Montagne	(Mhtn) New York City
Egner, Arthur Frederick	Newark, N. J.
Ehrmann, Albert	(Mhtn) New York City

Elias, Henry Hart	(Mhtn) New York City
Falk, Milton A.	(Mhtn) New York City
Fink, Colin Hartfield	(Mhtn) New York City
Fort, Jacob Irving	Newark, N. J.
Geer, Enos Throop	(Mhtn) New York City
Goff, John William, Jr.	(Mhtn) New York City
Goodman, Frank Valentine	(Mhtn) New York City
Gookin, Warner Foote	(Mhtn) New York City
Gordon, Hamilton Adair	(Mhtn) New York City
Haas, Herbert Joseph	Atlanta, Ga.
Harris, Henry Samuel	(Mhtn) New York City
Harrison, Edmond Jordan	(Bklyn) New York City
Harrison, Richard Compton	(Bklyn) New York City
Heaton, W. Claude	New Paltz, N. Y.
Hendrickson, Charles Le Roy	(Bklyn) New York City
Hills, William Forrest	(Mhtn) New York City
Hoffman, Alfred	(Bklyn) New York City
Isaacs, Stanley Myer	(Mhtn) New York City
Jackson, Roland Pearce	(Mhtn) New York City
Kahn, Ely Jacques	(Mhtn) New York City
Keeler, Howard Allan	(Mhtn) New York City
Kennedy, Charles William	(R) New York City
Koenig, Nicholas August	(Mhtn) New York City
La Roche, Philip Bevan, Jr.	(Mhtn) New York City
Le Fèvre, Francis Edward	Low Point-on-Hudson, N. Y.
Lefferts, Barent	(Mhtn) New York City
Loveman, Herbert Spencer	(Mhtn) New York City
McCollom, Harold Chaffee	(Bklyn) New York City
McKinney, Francis W.	(Mhtn) New York City
Mandelbaum, Herbert D.	(Mhtn) New York City
Mapes, Clive Spencer	(Mhtn) New York City
Megrue, Roi Cooper	(Mhtn) New York City
Menocal, Daniel Ammen	(Mhtn) New York City
Moses, James Garfield	Louisville, Ky.
Odell, Louis S.	Moravia, N. Y.
O'Loughlin, Gerald Stuart	(Mhtn) New York City
Osborn, Charles Whytlaw	Bellport, L. I.
Parr, Harry Lilienthal	Yonkers, N. Y.
Pitske, Edgar Dudensing	(Mhtn) New York City
Potts, Rockhill Brevoort	(Mhtn) New York City
Pullich, Otto, Jr.	(Mhtn) New York City
Ridder, Bernard H.	(Mhtn) New York City
Riggs, Lawrason, Jr	Ridgefield, Conn.
Ropes, Chapman	Morristown, N. J.
Schulman, Robert	(Bklyn) New York City
Schuyler, Robert Livingston	(Mhtn) New York City
Seil, Harvey Ambrose	Perth Amboy, N. J.

Shields, Harold	Nicholson, Pa.
Shoenfeld, Jerome Benjamin	(Mhtn) New York City
Smithers, Charles Henry	(Bklyn) New York City
Spiegelberg, Walter Scott	(Mhtn) New York City
Steeves, Harrison Ross	(Mhtn) New York City
Sutton, George Augustus Keen	(Mhtn) New York City
Taylor, John Warner	Utica, N. Y.
Tellzy, Samuel Abraham	(Bklyn) New York City
Thoman, William Frederick	(Mhtn) New York City
Toussaint, Camille Augustus	Jersey City, N. J.
Turnbull, William Fyfe	Orange, N. J.
Von Sholly, Benjamin Rudolph	(Q) New York City
Wallstein, Leonard Michael	(Mhtn) New York City
Warren, George Earle	(Mhtn) New York City
Weekes, Arthur Delano, Jr	(Mhtn) New York City
Wells, Frederic Lyman	(Mhtn) New York City
Willis, Reginald Satterlee	(Mhtn) New York City
Wolff, Edwin	(Mhtn) New York City
Wortmann, Albert	(Mhtn) New York City
Wyatt, Christopher Billopp	(Mhtn) New York City
Wyckoff, Clarence Johnson	(Bklyn) New York City
Wyld, Robert Hasbrouck	Cornwall-on-Hudson, N. Y.

Sophomore Class....................................97

FRESHMAN CLASS

Abeles, Harry	(Mhtn) New York City
Akin, Albert John, II	(Mhtn) New York City
Allen, Theodore Henry	(Mhtn) New York City
Bartholomew, Robert Bradford	(Mhtn) New York City
Bass, Murray Harold	(Mhtn) New York City
Batchelor, Charles B	(Mhtn) New York City
Bates, John Grenville	(Mhtn) New York City
Baxter, Herbert Weeks	(Mhtn) New York City
Beekman, Henry Rutgers, Jr	(Mhtn) New York City
Benjamin, Frank Erastus	(Mhtn) New York City
Blake, Clinton Hamlin, Jr	Englewood, N. J.
Bloomfield, Allen J	Richfield Springs, N. Y.
Bogert, Henry Lawrence, Jr	(Q) New York City
Bogue, Frank Tefft	(Bklyn) New York City
Boyesen, Algernon Keen	(Mhtn) New York City
Boyesen, Bayard H	(Mhtn) New York City
Brace, Donald Clifford	(Mhtn) New York City
Bryant, William Sydney, Jr	Dallas, Tex.
Carlsson, Carl Pontus	(Mhtn) New York City
Carpenter, Warwick S	North Hoosick, N. J.
Champion, John Cross	Rome, N. Y.

Coffin, Ralston Roberts	(Mhtn) New York City
Deyo, Leib	Yonkers, N. Y.
Duell, William Comstock	Tarrytown, N. Y.
Earle, William Pitt Striker	(Mhtn) New York City
Elgar, Harold Benjamin	(Mhtn) New York City
Ellis, George Adams	Castleton, Vt.
Fisher, John Redwood	Hoboken, N. J.
Fisher, Mortimer L.	(Mhtn) New York City
Foote, Leroy Heman	Whitehall, N. Y.
Forbes, Francis Bonner	(Mhtn) New York City
Fountain, Charles Hillman	Plainfield, N. J.
Frank, Walter	(Mhtn) New York City
Fried, Edward Samson	(Mhtn) New York City
Gaige, Roscoe Crosby	Nelson, N. Y.
Gestefeld, Don Heathfield	Pelham, N. Y.
Gissel, Henry William	(Mhtn) New York City
Goldberger, Norman Samuel	(Mhtn) New York City
Goldfrank, Walter Stanley	(Q) New York City
Gravenhorst, Paul Gerhard	(Bklyn) New York City
Greene, Van Rensselaer Hoff	(Mhtn) New York City
Gutman, Arthur S.	(Mhtn) New York City
Hammerslough, Rossin Lewis	(Mhtn) New York City
Hanemann, Edward Louis	(Mhtn) New York City
Harris, Herbert Henry	(Mhtn) New York City
Hayes, Carlton Huntley	Afton, N. Y.
Hill, Emory	Scottsville, Va.
House, Everett	Long Branch, N. J.
Houston, Oscar Rempel	(Mhtn) New York City
Howland, De Ruyter	New Rochelle, N. Y.
Hoyt, Russell Pratt, Jr.	(Mhtn) New York City
Hurley, Thomas Lester	(Mhtn) New York City
Iselin, Lewis	New Rochelle, N. Y.
Isenburger, Edward	(Bklyn) New York City
Jacobs, Walter Abraham	Boston, Mass.
Jouard, Farel Louis	(Mhtn) New York City
Kahn, Albert Louis	(Mhtn) New York City
Kerr, Arthur Thomas	El Paso, Tex.
Kilroe, Edwin Patrick	Jersey City, N. J.
Knauff, Grant	(Q) New York City
Knox, Jaxon	(Mhtn) New York City
Koenig, Edwin Brill	(Mhtn) New York City
Kreuder, Herman Ernest	(Mhtn) New York City
Krusa, Harry B.	(Bklyn) New York City
Landauer, Leo Levy	Natchez, Miss.
Lawson, Charles Francis	(Bklyn) New York City
Lawton, Maxwell Francis	(Bklyn) New York City
Loening, Rudolph Rubino	(Mhtn) New York City

Lyford, Edward Bert	Montclair, N. J.
McAneny, Leonard Gordon	Fanwood, N. J.
McDonald, Frank Peter	(Mhtn) New York City
McDonald, James Edward	(Mhtn) New York City
McLintock, Frederick Seybel	(Mhtn) New York City
McLintock, Herbert M	(Mhtn) New York City
Mackie, Paul Berzelius	Kingston, N. Y.
Maeder, John Samuel	(Mhtn) New York City
Marks, Elkan	(Mhtn) New York City
Mettler, Charles G	Klines Grove, Pa.
Munker, Maurice Jones	Steubenville, O.
Myers, James	(Mhtn) New York City
Newberger, Harry W	New Albany, Ind.
O'Connell, Frank L	(Mhtn) New York City
Oppenheimer, Edgar Davidson	(Mhtn) New York City
Paur, Hans S. Theodor	(Mhtn) New York City
Perkins, Isaac Clendennin	(Mhtn) New York City
Perry, T. Lockwood	(Mhtn) New York City
Pettit, James G	(Bklyn) New York City
Pitou, Eugene, Jr	(Mhtn) New York City
Potts, George Henry	(Mhtn) New York City
Putnam, Edmund Whitman	(Mhtn) New York City
Putnam, Willis H	(Mhtn) New York City
Reis, Arthur Maurice	(Mhtn) New York City
Robbins, Robert Dumont	Summit, N. J.
Robinson, James Latimer	(Mhtn) New York City
Schramm, Arnold O	(Mhtn) New York City
Selvage, Irving Dester	Newark, N. J.
Seymour, John Cotes, Jr	(Mhtn) New York City
Shainwald, Ralph Louis, Jr	(Mhtn) New York City
Smith, Bert Veitch	New Rochelle, N. Y.
Speck, Frank G., Jr	Hackensack, N. J.
Stauffen, Ernest, Jr	(Mhtn) New York City
Stephenson, Albert Grant	(Mhtn) New York City
Strasser, Arthur Lewis	(Mhtn) New York City
Stray, Arthur Thomas	Sing Sing, N. Y.
Sweeney, John Cuthbert	(Bklyn) New York City
Swortfiguer, H. Bragdon	Canajoharie, N. Y.
Taylor, Clinton Tallmadge	Mt. Vernon, N. Y.
Thurber, Alfred Edward	Rutherford, N. J.
Townsend, Henry Clark, Jr	(Mhtn) New York City
Toy, Channing Rust	(Mhtn) New York City
Trotter, James Patten	Yonkers, N. Y.
Updike, Edwin Hoyt	Hopatcong Landing, N. J.
Van Ness, Schuyler Waldron	Newark, N. J.
Verplanck, John Bayard Rodgers	Fishkill-on-Hudson, N. Y.
Vogel, Edwin Chester	(Mhtn) New York City

von Bermuth, Rudolph Ludwig	(Mhtn) New York City
Warren, Arthur Dudley	(Mhtn) New York City
Weissman, Clarence	(Mhtn) New York City
Whitaker, Frederick Prescott	(Mhtn) New York City
Whitehead, Henry St. Clair McMillin	Port Chester, N. Y.
Whitin, Ernest Stagg	(Bklyn) New York City
Wile, Udo Julius	(Mhtn) New York City
Willcox, James Ernest	Oxford, N. Y.
Wilson, Randolph Roclough	(Mhtn) New York City
Wuppermann, Raphael Kuhner	(Mhtn) New York City
Wylie, John Parr	(Mhtn) New York City
Young, Charles O.	Port Jervis, N. Y.
Freshman Class	127

SPECIAL STUDENTS

Allan, Adrian Russell	Montclair, N. J.
Avery, Stanley Robert	Yonkers, N. Y.
Bavetta, Vincenzo, Jr.	(Bklyn) New York City
Carrington, John Baron	Louisville, Ky.
Collins, William Major	(Mhtn) New York City
Dryfoos, Jack Alphons	(Mhtn) New York City
Dudley, Pendleton	Troy, Mo.
Elsworth, Harold J.	Irvington, N. Y.
Farnham, Charles Haight	(Mhtn) New York City
Fleming, Walter Storer	Scarsdale, N. Y.
Foley, John Philip	(Mhtn) New York City
France, Albert Lee	St. Joseph, Mo.
Fuerst, Sidney Marsden	(Mhtn) New York City
Fuller, Léonce Coudert	(Mhtn) New York City
Futter, Leon Nathan	(Q) New York City
Garcelon, Albert Bertram	Chicago, Ill.
Gee, William Ernest	(Mhtn) New York City
Haas, Jacob Lionel	Montgomery, Ala.
Harcourt, Alfred	New Paltz, N. Y.
Holden, Sidney Bowen	(Mhtn) New York City
Hughes, Don Emanuel	Olean, N. Y.
Hull, Frank Irving	Mt. Vernon, N. Y.
Johnson, Walter Adams	(Mhtn) New York City
Johnson, William Fisher	Savannah, Ga.
Judson, Clyde Hartson	Painesville, O.
Kelley, Robert Henry	Hartsdale, N. Y.
Kelly, John Jerome	(Mhtn) New York City
Kraeger, Vivian Smith	(Bklyn) New York City
Lewis, Alfred Homes	Greenwich, Conn.
Lindeman, Howard Edward	(Mhtn) New York City
Lockhart, Edward Vern, LL.B., *Buffalo Law School*	(Mhtn) New York City
McClelland, George William	Dobbs Ferry, N. Y.

McKelden, William Blagrove, Jr	Washington, D. C.
McLean, James Hammond	(Mhtn) New York City
Marcus, Benjamin Moses	Olean, N. Y.
Martin, Clarence	(Mhtn) New York City
Masury, John W.	(Mhtn) New York City
Merriman, Erle Homer	St. Joseph, Mo.
Milke, Edward E., Jr	Greenville, N. J.
Moore, Albert Jones	Kennebunk, Me.
Moore, Charles Hayward	Providence, R. I.
Morris, Albert Henry	(Bklyn) New York City
Mott, Hopper Lenox	(Mhtn) New York City
Motte, Joseph Washburn	(Mhtn) New York City
Nadeau, Oscar	(Mhtn) New York City
Nation, Blake B.	Peekskill, N. Y.
Odell, Herbert Roe	Newburgh, N. Y.
Peters, Harry Twyford	Islip, N. Y.
Pickells, John Robinson	(Mhtn) New York City
Reid, Robert Lincoln	(Mhtn) New York City
Robinson, Anson Flower	(Mhtn) New York City
Rollins, Warren F.	(Bklyn) New York City
Rossbach, William	Mt. Vernon, N. Y.
Scharps, Charles Edward	(Mhtn) New York City
Schroeder, Gilliat Ghequiere	Bartow, N. Y.
Schroeder, Rudolph C. T., Jr	Hoboken, N. J.
Stratford, Arthur Chazette	Jersey City, N. J.
Taylor, Morgan Parker	Poughkeepsie, N. Y.
Veit, J. Nelson	(Mhtn) New York City
Webster, Edward Harlan	Washington, D. C.
Weekes, Harold Hathaway	Oyster Bay, N. Y.
Westervelt, Leonidas	(Mhtn) New York City
Woolf, Edgar Allan	(Mhtn) New York City

Special Students 63

SUMMARY

Senior Class	89
Junior Class	98
Sophomore Class	97
Freshman Class	127
Special Students	63
Total	474

SCHOOL OF LAW

OFFICERS OF INSTRUCTION AND GOVERNMENT

Officers of the Faculty

WILLIAM A. KEENER, LL.D., *Dean and ex-officio Member of the University Council*

GEORGE W. KIRCHWEY, A.B., *Secretary*

FRANCIS M. BURDICK, LL.D., *Elected Delegate to the University Council*

Faculty of Law

SETH LOW, LL.D., *President*

WILLIAM A. KEENER, LL.D., *Kent Professor of Law, and Dean*

FRANCIS M. BURDICK, LL.D., *Dwight Professor of Law*

GEORGE W. KIRCHWEY, A.B., *Nash Professor of Law*

GEORGE F. CANFIELD, A.B., LL.B., *Professor of Law*

JOHN W. HOUSTON, A.M., LL.B., *Professor of Law*

Lecturers

CHARLES T. TERRY, A.B., LL.B.

HARLAN F. STONE, A.M., LL.B.

From the Faculty of Political Science

JOHN W. BURGESS, Ph.D., LL.D., *Professor of Political Science and Constitutional Law*

MUNROE SMITH, A.M., J.U.D., *Professor of Roman Law and Comparative Jurisprudence*

FRANK J. GOODNOW, LL.D., *Professor of Administrative Law*

JOHN B. MOORE, A.B., LL.D., *Hamilton Fish Professor of International Law and Diplomacy*

WILLIAM H. SWITZER, *Law Librarian*

PURPOSES OF THE SCHOOL

The design of the school is to prepare students for practice in any State of the Union, and in furtherance of this object the endeavor is made to give a thorough, practical, and scientific education in the principles of the law included in the following subdivisions :

First.—The COMMON LAW, in its development and as it exists to-day in the United States, together with such statutory modifications as are generally in force in the several States.

Second.—EQUITY, in its development and as it exists to-day in the United States.

Third.—The LAW of the STATE OF NEW YORK, including PRACTICE and PLEADING under the CODE OF CIVIL PROCEDURE and the doctrines of substantive law peculiar to that State.

Fourth.—The PUBLIC LAW of the United States, and the Principal EUROPEAN COUNTRIES, including CONSTITUTIONAL LAW, ADMINISTRATIVE LAW, and INTERNATIONAL LAW.

Fifth.—COMPARATIVE JURISPRUDENCE and ROMAN LAW.

COURSE OF INSTRUCTION

First Year

CONTRACTS—Keener's Cases on Contracts. 4 hours a week. Mr. TERRY

CRIMINAL LAW—Beale's Cases on Criminal Law. 2 hours a week. Mr. STONE

DOMESTIC RELATIONS AND LAW OF PERSONS—Woodruff's Cases on Domestic Relations. 2 hours a week.* Professor HOUSTON

ELEMENTS OF JURISPRUDENCE—Keener's Selections on Jurisprudence. 2 hours a week.† Professor KEENER

EQUITY—Origin and Nature, Bills of Peace, Interpleader, Quia Timet, Removal of Cloud upon Title, Jurisdiction over Torts.—Keener's Cases on Equity, Vol. I. 2 hours a week.† Professor KEENER

REAL AND PERSONAL PROPERTY—Tenures, Estates, Nature and Incidents of Ownership, Conveyancing, Landlord and Tenant. Kirchwey's Readings in Real Property; Gray's Cases on Property, Vols. I and 3. 2 hours a week. Professor KIRCHWEY

TORTS—Burdick's Cases on Torts; Pollock on Torts. 2 hours a week. Professor BURDICK

COMMON LAW PLEADING AND PRACTICE—Ames's Cases on Pleading; Stephen on Pleading. 2 hours a week.‡ Mr. STONE

Second Year

AGENCY—Wambaugh's Cases on Agency. 2 hours a week. Professor CANFIELD

BAILMENTS AND CARRIERS—McClain's Cases on Carriers. 2 hours a week. Professor HOUSTON

EQUITY—Trusts. Ames's Cases on Trusts. 2 hours a week. Professor KEENER

INSURANCE—Richards on Insurance. 2 hours a week.‡ Mr. STONE

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* First half-year.

† These courses together occupy two hours a week throughout the year. The course in Equity follows that in Jurisprudence.

‡ Second half-year.

NEGOTIABLE PAPER—Ames's Cases on Bills and Notes. 2 hours a week. Professor BURDICK

QUASI-CONTRACTS—Keener's Cases on Quasi-Contracts. 2 hours a week. Professor KIRCHWEY

REAL AND PERSONAL PROPERTY—Easements, Covenants Affecting Land, Watercourses, Public Rights, etc. Gray's Cases on Property, Vols. 2 and 3. 2 hours a week. Professor KIRCHWEY

SALES OF PERSONAL PROPERTY—Burdick's Cases on Sales; Burdick on Sales. 2 hours a week. Professor BURDICK

EQUITY PLEADING AND PRACTICE—2 hours a week.* Mr. STONE

ADMINISTRATIVE LAW—2 hours a week. Professor GOODNOW

COMPARATIVE CONSTITUTIONAL LAW—3 hours a week. Professor BURGESS

INSTITUTES OF ROMAN LAW—2 hours a week. Professor MUNROE SMITH

Third Year

BANKRUPTCY—2 hours a week.* Professor HOUSTON

CORPORATIONS—Keener's Cases on Corporations. 2 hours a week. Professor KEENER

EQUITY—Jurisdictions over Contracts, Account, Equitable Conversion. Keener's Cases on Equity Jurisdiction, Vols. 2 and 3. 2 hours a week. Professor KEENER

EVIDENCE—Thayer's Cases on Evidence. 2 hours a week. Professor CANFIELD

NEW YORK LAW, DOCTRINES PECULIAR TO—Trusts, Powers, Perpetuities, Charitable Devises, etc. 2 hours a week.* Professor CANFIELD

PARTNERSHIP—Burdick's Cases on Partnership; Burdick on Partnership. 2 hours a week. Professor BURDICK

REAL AND PERSONAL PROPERTY—Conditions, Future Estates, Priorities, Restraints on Alienation, Perpetuities, etc. Gray's Cases on Property, Vols. 5 and 6. 2 hours a week. Professor KIRCHWEY

SURETYSHIP AND MORTGAGE—Ames's Cases on Suretyship; Kirchwey's Cases on Mortgage. 2 hours a week.† Professors BURDICK and KIRCHWEY

WILLS AND ADMINISTRATION—Gray's Cases on Property. Vol. 4. 2 hours a week. Professor HOUSTON

CODE PLEADING AND PRACTICE—2 hours a week. Mr. STONE

OFFICE PRACTICE—2 hours a week.‡ Professor HOUSTON

COMPARATIVE JURISPRUDENCE—2 hours a week. Professor MUNROE SMITH

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* First half-year.

† The course on Suretyship is given during the first half-year by Professor BURDICK; the course on Mortgages during the second half-year by Professor KIRCHWEY. These courses cannot be taken separately.

‡ Second half-year. The course on Office Practice is intended to cover all the work of the law office not included in the courses on Pleading and Practice. Particular attention will be paid to the searching of titles, drawing of deeds, mortgages, trust instruments, wills, contracts, and mercantile instruments of various kinds, and the drafting of papers relating to the organization, reorganization, and management of corporations.

CONFLICT OF PRIVATE LAW—1 hour a week. Professor MUNROE SMITH
INTERNATIONAL LAW—2 hours a week. Professor MOORE
MUNICIPAL CORPORATIONS—1 hour a week. Professor GOODNOW
LAW OF TAXATION—1 hour a week. Professor GOODNOW

Moot Courts

Moot Courts are held during the academic year, open only to members of the second and third-year classes.

Requirements for Admission

All applicants for admission to the school must be of good moral character, and must be at least eighteen years of age for admission to the work of the first-year class at its formation, and of a corresponding increase of age for admission to advanced standing.

Graduates of colleges and scientific schools in good standing are admitted without examination. All persons other than such graduates must be eligible for admission to the Sophomore class of the College, or present the Academic Diploma of the Regents of the State of New York, or a certificate acceptable to the Regents in lieu thereof. Inquiries for information as to Regents' certificates should be addressed to "The University of the State of New York, Examination Department, Albany, New York."

Beginning with the academic year 1903–1904 no person will be admitted to the school except graduates of colleges and scientific schools in good standing, or persons presenting satisfactory evidence of equivalent training.

Advanced Standing

Applicants for admission to advanced standing must produce satisfactory evidence of having spent as much time in some school having a required course of three years leading to the degree of Bachelor of Laws as has been spent in this school by the class to which admission is sought, and must in addition thereto pass satisfactory examinations in all the work previously done by the class to which they seek admission. No certificate or diploma will be accepted in lieu of these examinations for advanced standing.

No applicant will be admitted to advanced standing beyond the second year except by special vote of the faculty.

Applicants for admission to advanced standing will be required to produce evidence of having been qualified to enter the school at the formation of the class to which they seek admission.

Special Students

Applicants who do not desire to become candidates for a degree may, if qualified to become candidates for a degree, pursue a special course of study approved by the Dean. Such students will be classified as special students. No one will be admitted to the school to pursue advanced work as a special student who has not passed satisfactory examinations in the contract, equity, and property courses preceding such work in point of time.

Special students must present themselves for examination in each subject selected by them at the first examination held therein, and must pass satisfactory examinations in a majority of the subjects, as a condition of continuing in the school.

Examinations

Written examinations are held at the end of each year on the subjects of that year and on the subjects of the first and second years during the week preceding the first Monday in October.

No student is admitted to advanced standing who has failed to pass satisfactory examinations in more than four hours of work per week. Any student failing in the final examinations held at the end of the first and second years may present himself for re-examination during the week preceding the first Monday in October. No student failing a third time in any given subject will be allowed to continue in the school.

No special examinations are given.

DEGREES AND CERTIFICATES

Bachelor of Laws

The course of instruction leading to the degree of Bachelor of Laws covers a minimum period of three years, in which there are offered sixty-three hours of instruction per week throughout the year. In the first year are offered fourteen hours of instruction per week; in the second year twenty-three hours of instruction per week; in the third year twenty-six hours of instruction per week, in addition to the nine hours per week in the second year not offered for the degree during that year.

The degree of Bachelor of Laws is conferred only upon students who have passed satisfactory examinations in courses covering a total of forty-two hours per week.

To obtain this degree in three years the student must take courses covering fourteen hours per week in each of the three years.

While no student will be allowed to present himself for examination in any one year in subjects covering more than fourteen hours per week, any one desiring to prolong the period of study for the degree of LL.B. beyond three years will be permitted to reduce thereby the amount of work in any one year necessary for the degree. The faculty would strongly advise students who have not had an opportunity of thoroughly studying history, economics, and finance, so to prolong their course of study in order that they may avail themselves of the opportunity offered in the School of Political Science for studying these subjects.

The work selected by a student for a degree in law is subject in every case to the approval of the Dean.

Master of Laws

(See page 207)

Master of Arts

(See page 212)

REGISTER OF STUDENTS

THIRD YEAR CLASS

Abbe, William, A.B., *Harvard*	Washington, D. C.
Anderson, Rupert Wentworth Kelsell	Plainfield, N. J.
Arens, Max	(Bklyn) New York City
Armstrong, Lawrence Edgar, Ph.B., *Ohio University;* A.M., *Columbia*	Rawlins, Wyo.
Aronson, David Archibald, B.S., *N. Y. City College*	(Mhtn) New York City
Aronson, Jacob Jay, A.B., *N. Y. City College;* A.M., *Columbia*	(Mhtn) New York City
Averill, Frederick Clark, Ph.B., *University of Michigan;* A.M., *Columbia*	Toledo, O.
Averill, Morton Knight, A.B., *Columbia*	(Mhtn) New York City
Baker, Edward, B. G	Watervliet, N. Y.
Baker, Louis Belmont, M.D., *University of Buffalo*	(Mhtn) New York City
Barkley, Charles Brackett	(Mhtn) New York City
Bennett, Warfield Clay, A.B., *Central University*	Richmond, Ky.
Bentel, George Edwin, A.B., A.M., *Lafayette*	(Mhtn) New York City
Birnbaum, Martin, A.B., *N. Y. City College;* A.M., *Columbia*	(Mhtn) New York City
Blumenthal, Eugene, A.B., *Yale*	(Mhtn) New York City
Botty, George Matthew	(Mhtn) New York City
Brimmer, George Edric	Sandy Hill, N. Y.
Bross, William Warren, A.B., A.M., *Columbia*	(Mhtn) New York City
Byers, Russell Trall, Ph.B., *Wabash*	Indianapolis, Ind.
Christmann, Adam, Jr	(Bklyn) New York City
Cohen, Isaac	(Mhtn) New York City
Cohen, Max, A.B., *N. Y. City College*	(Mhtn) New York City
Comey, John Winthrop, Ph.B., *Brown*	(Mhtn) New York City
Corrigan, Joseph Eugene, A.B., A.M., *Seton Hall*	(Mhtn) New York City
Curtis, Ellicott Douglass, A.B., *Harvard*	(Mhtn) New York City
Cushing, Harry Alonzo, A.B., *Amherst;* Ph.D., *Columbia*	(Mhtn) New York City
Doherty, Charles John	(Mhtn) New York City
Doughty, William Howard, Jr., A.B., *Williams*	Troy, N. Y.
Duncan, George Edwards, A.B., *Bethel*	Russellville, Ky.
Eyanson, Francis Engelbert, B.L., *Notre Dame University*	Columbia City, Ind.
Farnham, Wallace Strong	South Windsor, Conn.

Fischer, Samuel Melvin, A.B., *N. Y. City College;* A.M., *Columbia* (Mhtn) New York City
Floyd, Charles William, A.B., *Williams*.................. Memphis, Tenn.
Fox, Robert Charles.................................... La Porte, Ind.
Fuller, Charles, A.B., *St. Francis Xavier*............. (Mhtn) New York City
Gilchrist, Edward Percy, Ph.B., *Bucknell University*............. Wade, Fla.
Goodhue, Isaac Walter, B.D., *Crozer Theo. Seminary*.. Mhtn) New York City
Haas, Harry Louis, A.B., *Columbia*.................. (Mhtn) New York City
Haber, Joseph, Jr., Ph.B., *University of California*....... San Francisco, Cal.
Hall, Lester Walton, Ph.B., *Yale*........................ Kansas City, Mo.
Haussling, Gustave...................................... Newark, N. J.
Herman, Sydney Hubert, A.B., *N. Y. City College;* A.M., *Columbia* (Mhtn) New York City
Huffaker, Hite Hervey.................................. Louisville, Ky.
Ingraham, Daniel Phœnix, A.B., *Harvard*............ (Mhtn) New York City
Josephson, Walter Stokes.......................... (Bklyn) New York City
Josephthal, Sidney Louis, A.B., *Columbia*............. (Mhtn) New York City
Kaiser, Emanuel Metzger, A.B., *N. Y. City College*.... (Mhtn) New York City
Kayser, Harry Conrad Adolphus..................... (Mhtn) New York City
Koenig, Herman Leopold................................. Newark, N. J.
Lee, Arthur, A.B., *Columbia*........................ (Bklyn) New York City
Levy, Louis Samter, A.B., *Yale;* A.M., *Columbia*.......... Bloomington, Ill.
McGrath, Francis Sims, B.S., *University of Pennsylvania* (Mhtn) New York City
McNaught, Roy Hyde.............................. (Mhtn) New York City
Mackenzie, Kenneth Kent............................... Kansas City, Mo.
Mairs, Olney Blanchard, A.B., *Williams*............. (Bklyn) New York City
Manton, Martin Thomas.......................... (Bklyn) New York City
Menline, Joseph Spencer, A.B., *N. Y. City College;* A.M., *Columbia* (Mhtn) New York City
Miller, Nelson Dorrington................................ Steubenville, O.
Mooney, Francis Xavier.................................. Oneonta, N. Y.
Mueller, Alfred Christian, LL.B., *Iowa State University*....... Davenport, Ia.
Myers, David Sydney, A.B., *N. Y. City College*........ (Mhtn) New York City
Perkins, Norton, A.B., *Harvard*..................... (Mhtn) New York City
Picher, Oliver Sheppard, A.B., *Leland Stanford, Jr., University* Pasadena, Cal.
Pollock, Henry William............................ (Mhtn) New York City
Raynolds, Herbert Frederick, A.B., *Harvard*......... (Mhtn) New York City
Recknagel, Harold Sylvester, A.B., *Yale*............. (Bklyn) New York City
Requa, Leonard Franklin, Jr....................... (Mhtn) New York City
Robinson, Beverley Randolph, A.B., *Harvard*......... (Mhtn) New York City
Robinson, Herman Foster, A.B., *Harvard*............ (Mhtn) New York City
Rogers, John Shillito, A.B., *Yale*.................. (Mhtn) New York City
Rogers, Thomas Francis.................................. Corning, N. Y.
Ruslander, S. Leo.. Du Bois, Pa.
Sarle, John R... Coveville, N. Y.

Schreiber, George Gebner, A.B., *Yale*......................Hoboken, N. J.
Scott, Allan, B.S., *N. Y. City College*..................(Mhtn) New York City
Seaman, Warren Clifford ... .Glen Head, N. Y.
Sherer, Prescott Alfriend, A.B., *Columbia*.............(Mhtn) New York City
Silbiger, Samuel..................................(Mhtn) New York City
Smith, Robert Leslie....................................(Q) New York City
Smith, Thomas Max, A.B., *Yale*......................Keene Valley, N. Y.
Southard, Charles Erastus, B.S., *University of Colorado*........Greeley, Colo.
Stayton, John William, Jr...................... ....Newport, Ark.
Symmes, William Bittle, Jr., A.B., *Columbia*..........(Mhtn) New York City
Tows, Ferrars Heaton, A.B., *Yale*..................(Mhtn) New York City
Trigg, William Hall...................................Boonville, Mo.
Turnbull, Robert James, Jr., A.B., *Yale*..............(Mhtn) New York City
Turner, Lucius Don.......................................Belleville, Ill.
Tyler, Cornelius Boardman, A.B., *Amherst*............(Mhtn) New York City
Vigouroux, George Émile............................(Mhtn) New York City
Wales, Byron Roger.................... ....Binghamton, N. Y.
Walker, Harold, A.B., *Amherst*.....................(Mhtn) New York City
Ward, Charles Whitney...............................Dorchester, Mass.
Warner, Lucien Thompson, A.B., *Oberlin*........Irvington-on-Hudson, N. Y.
Waterman, Edgar Francis, A.B., *Trinity*.............(Mhtn) New York City
Whitney, William Locke, A.B., *Oberlin*...................Honolulu, Hawaii
Wilson, Burton Wilbur, A.B., *University of Nebraska*..(Mhtn) New York City
Wilson, George Wood, B.S., *Guilford College*.................Lenoir, N. C.
Wilzin, Jerome..Greenville, Miss.
Woolsey, John Munro, A.B., *Yale*........................Englewood, N. J.
Yuzzolino, Albert Mazzini, A.B., *N. Y. City College*....(Bklyn) New York City
Third Year Class.......................................100

SECOND YEAR CLASS

Aarons, Sidney Henry, B.S., *N. Y. City College*.......(Mhtn) New York City
Acton, Harry Wagner.................................(Mhtn) New York City
Adams, John Brown, A.B., *Yale*.....................(Mhtn) New York City
Albers, Henry, Jr., A.B., *Pennsylvania College*........(Bklyn) New York City
Ansley, George Hanford, A.B., *Williams*.................Salamanca, N. Y.
Anspacher, Louis Kaufman, A.B., *N. Y. City College;* A.M., *Columbia*
(Mhtn) New York City
Baird, William Edward, A.B., *Vanderbilt University*........Columbia, Tenn.
Baker, Charles Adkins, A.B., A.M., *Columbia*........(Mhtn) New York City
Barrett, John Michel, A.B., *Georgetown University*....(Mhtn) New York City
Bartholomae, Hugo James...........................(Mhtn) New York City
Beekman, Cornealius C....................................Bath, N. Y.
Benziger, Bernard Adelrich, A.B., *Canisius College*..........(R) New York City
Beyer, Robert Paul.................................(Mhtn) New York City
Bissell, Hugh Moffat, A.B., *Yale*.............................Detroit, Mich.
Bloch, Benjamin I...................................(Mhtn) New York City
Bogart, Paul Nebeker, A.B., *Williams*........................Clinton, Ind.

Bryson, Roscoe St. Clair, A.B., *University of Oregon*..........Corvallis, Ore.
Burrell, Norman Macleod, A.B., *Yale*................(Mhtn) New York City
Cardozo, Ernest Abraham, A.B., A.M., *Columbia*......(Mhtn) New York City
Clark, Harrison, Jr., A.B., *Columbia* ....(Mhtn) New York City
Coe, John Lawrence, Jr..................................Bay Shore, N. Y.
Conger, Henry Rutgers, A.B., *Williams*.............(Mhtn) New York City
Conklin, Robert Smith.....................................Albany, N. Y.
Connolly, Maurice Edward...........................(Q) New York City
Curtis, Benjamin Robbins, A.B., *Harvard*...........(Mhtn) New York City
Curtis, Bridgham, A.B., *Harvard*...................(Mhtn) New York City
Cushing, Royal Barrows, A.B., *Knox College*......................Buda, Ill.
Dennis, Henry Ray, A.B., *Yale*.....................(Mhtn) New York City
Duckworth, Albert Walter..........................(Bklyn) New York City
Duden, William...Bronxville, N. Y.
Du Vivier, Joseph...................................(Mhtn) New York City
Dwyer, John Joseph ....(Mhtn) New York City
Edwards, James Alexander, A.B., *Columbia*...........(Mhtn) New York City
Eldert, Henry Cameron, A.B., *Columbia*.............(Bklyn) New York City
Ernst, Bernard Morris Leon, A.B., *Columbia*..............Uniontown, Ala.
Falck, Alexander Diven, A.B., *Williams*....................Elmira, N. Y.
Farrell, Philip Leo..................................(Bklyn) New York City
Foise, Joseph Freund ....(Mhtn) New York City
Forst, Leon..Rondout, N. Y.
Fox, Noel Bleecker, A.B., *Princeton*...................Morristown, N. J.
Frank, Joseph Slevin, A.B., *N. Y. City College*.......(Mhtn) New York City
Frank, Walter Paul, A.B., *Harvard*.................(Mhtn) New York City
Frazer, Charles Royall, A.B., *Yale;* A.M., *Columbia* ....Cynthiana, Ky.
Frechtling, Helm Philip.....................................Hamilton, O.
Gagan, Thomas Francis.................................Haverstraw, N. Y.
Ganter, Charles Ransom, A.B., *Kenyon*.........................Akron, O.
Gates, Merrill Edwards, Jr., A.B., *Amherst*.......... (Mhtn) New York City
Gerrety, Thomas Aquinas, B.S., *Rutgers*.............New Brunswick, N. J.
Gillespie, Lawrence Lewis, A.B., *Harvard*............(Mhtn) New York City
Gladney, Franklin Young, A.B., *Missouri State University*.....Auburn, Mo.
Glasscheib, Simon Henry...........................(Mhtn) New York City
Goldberg, Samuel, B.S., *N. Y. City College*..........(Mhtn) New York City
Gould, James Henry, A.B., *Cornell* ....Seneca Falls, N. Y.
Graves, Dwight Davis..................................Bridgeport, Conn.
Graves, James Washington..............................Montgomery, Mo.
Griffin, Walter Henry, A.B., *Amherst*...............(Bklyn) New York City
Guinan, Edwin Vincent ....North Adams, Mass.
Haas, Leonard, A.B., *University of Georgia*..................Atlanta, Ga.
Hamilton, Edward William, A.B., *Princeton*..........(Mhtn) New York City
Hare, John Joseph, B.L., *Hobart*..........................Groton, N. Y.
Harrington, Howard Sawyer, A.B., *Columbia*.............Jersey City, N. J.
Havens, Samuel Mark, A.B., *University of Rochester*.......Weedsport, N. Y.
Hentschel, Charles, Jr...........................(Bklyn) New York City

Heyman, Samuel..Jersey City, N. J.
Hopps, Daniel Valentine, A.B., *University of Georgia*........Savannah, Ga.
Howe, Joseph Parkhurst, A.B., *Columbia*............(Mhtn) New York City
Insley, Robert Buckell.................................Indianapolis, Ind.
Jenkins, Raeburn William, A.B., *N. Y. City College*...(Mhtn) New York City
Jones, Frederick Vincent, A.B., *Columbia*............(Mhtn) New York City
Joseph, Irving Jacob..............................(Mhtn) New York City
Kelly, Edward John, A.B., *Santa Clara*..............(Mhtn) New York City
Knoell, Charles John...........................North Tonawanda, N. Y.
Leale, Loyal, A.B., *Columbia*......................(Mhtn) New York City
Leffingwell, Russell Cornell, A.B., *Yale*....................Yonkers, N. Y.
Leng, Theodore Castle...............................(R) New York City
Lewis, Everson Howard, A.B., *Yale*...................... Syracuse, N. Y.
Lichtenstein, Oscar Richard, A.B., *Columbia*.........(Bklyn) New York City
Lowenstein, Sol. Albert............................(Mhtn) New York City
McCann, John Franklin, Jr., A.B., *Columbia*.........(Bklyn) New York City
McGonegal, Henry S., A.B., *Colby*......................Irondequoit, N. Y.
McLellan, Hugh Dean......................................Belfast, Me.
Marcus, John, A.B., *Columbia*..........................Jersey City, N. J.
Marsden, Arthur Willard.............................New Haven, Conn.
Marshall, Chesley Brown, A.B., *Mercer University*.............Atlanta, Ga.
Metzger, William Johnston.....................................Latrobe, Pa.
Miller, Harry....................... ....(Q) New York City
Mitchell, George Henry, A.B., *Yale*.................(Mhtn) New York City
Mittendorf, George Samuel, A.B., *Yale*..............(Mhtn) New York City
Moller, Frank G..Quincy, Ill.
Moorhead, Harley Green, Ph.B., *Oberlin*.....................Omaha, Neb.
Moore, William Underhill, A.B., *Columbia*...........(Mhtn) New York City
Morgan, William Osgood, B.S., *Cornell*...................Pittsfield, Mass.
Mulligan, George Hobart, A.B., A.M., *St. Francis Xavier*....Newark, N. J.
Mulligan, James Roosevelt, A.B., A.M., *St. Francis Xavier*...Newark, N. J.
Myers, Vivian Meredith, A.B., *Richmond College*..............Savannah, Ga.
Neff, Charles Melvin, Ph.B., *University of Rochester*.......Rochester, N. Y.
Nicoll, Fancher, A.B., *Williams*...................(Mhtn) New York City
O'Loughlin, Colman Stuart, A.B., *Yale*..................Glens Falls, N. Y.
Ossoski, Sidney.................................(Mhtn) New York City
Page, Benjamin Edwin, A.B., *Leland Stanford, Jr., University*
Pasadena, Cal.
Parks, John Waring, A.B., *Columbia*.................(Mhtn) New York City
Parsons, Geoffrey, A.B., *Columbia*......................(Q) New York City
Parsons, George Sanford..........................(Bklyn) New York City
Parsons, Theophilus, A.B., *Columbia*...................(Q) New York City
Pond, Oscar Lewis, A.B., *Indiana University*..............Shelbyville, Ind.
Pretzfeld, Howard Friedman, B.S., *N. Y. City College*; A. M., *Columbia*
(Mhtn) New York City
Quinn, William Thomas, A.B., *Williams*..............Williamstown, Mass.
Rich, Leo Howard...............................(Bklyn) New York City

Riegelman, Charles Augustus, A.B., *University of Michigan*	(Mhtn) New York City
Rogers, William Leroy	Phœnixville, Pa.
Rothschild, Solomon	(Mhtn) New York City
Russell, Philip Winfred, A.B., *University of Nebraska*	Omaha, Neb.
Ryan, Michael Joseph, Jr	(Bklyn) New York City
Seligmann, Rudolph Albert, A.B., *N. Y. City College*; A. M., *Columbia*	(Mhtn) New York City
Sharps, Abraham	Newburgh, N. Y.
Smith, William Joseph, B.S., *Union College*	Waterford, N. Y.
Southard, Robert Hamilton, A.B., *Princeton*	(Mhtn) New York City
Sperling, Frederick William, A.B., *N. Y. City College*	(Mhtn) New York City
Strauss, Charles Augustus, A.B., *N. Y. City College*; A.M., *Columbia*	(Mhtn) New York City
Stremel, Karl Frederick	Johnstown, Pa.
Strouse, Alexander Louis, A.B., *N. Y. City College*; A.M., *Columbia*	(Mhtn) New York City
Sturgis, Granville Forbes	(Bklyn) New York City
Sundheimer, Malcolm, B.S., *N. Y. City College*	(Mhtn) New York City
Sykes, Emery Howe, A.B., *Bowdoin*	Auburn, Me.
Taylor, Howard Chapman	(Mhtn) New York City
Teven, Sidney Lionel, A.B., *N. Y. City College*; A.M., *Columbia*	(Mhtn) New York City
Thornley, John, A.B., *University of Virginia*	Charlottesville, Va.
Tilden, Ernest Lyman, A.B., *Knox*	Galesburg, Ill.
Townsend, Myron Turner, Ph.B., *Yale*	(Mhtn) New York City
Tuttle, Charles Henry, A.B., *Columbia*	(Mhtn) New York City
Tweedy, James Belcher	(Mhtn) New York City
Ullman, Jerome	(Mhtn) New York City
Valieant, John Foggo, A.B., *Lafayette*	(Mhtn) New York City
Van Hœvenberg, Henry, Jr	Kingston, N. Y.
Ward, Artemas, Jr., A.B., *Harvard.*	(Mhtn) New York City
Ward, Sylvester L'Hommedieu, Jr., A.B., *Columbia*	White Plains, N. Y.
Ward, Theodore Hackett	(Mhtn) New York City
Watterson, Harvey	Jeffersontown, Ky.
Weidmann, Anton	(Bklyn) New York City
Weinstein, Mayer Joseph, A.B., *Columbia*	(Mhtn) New York City
Wertheimer, Leo Weldon, Ph.B., *Kenyon*	Newport News, Va.
Whiteman, Thomas Moorhead, Ph.B., *Dickinson*	Latrobe, Pa.
Wickham, Romeyn Dudley, A.B., *Western Reserve University*	Norwalk, O.
Wolfe, William Henry, Jr., Ph.B., *Marietta*	Parkersburg, W. Va.
Wood, Loren N., B.S., *Carleton*	Arvilla, N. Dak.
Wortmann, Martin, A.B., *Columbia*	(Mhtn) New York City
Wright, Charles A., A.B., *Williams*	Moravia, N. Y.
Wund, William Frederick, B.S., *N. Y. City College*	(Mhtn) New York City
Second Year Class	148

FIRST YEAR CLASS

Ache, Paul Smith, C.E., *Pennsylvania Military*..............Pittsburg, Pa.
Adams, James Pinckney Henderson, A.B., *Yale*......(Mhtn) New York City
Alsberg, Henry Garfield, A.B., *Columbia*.............(Mhtn) New York City
Angell, Homer Daniel, A.B., *University of Oregon*.........The Dalles, Ore.
Anspacher, Philip Baum, A.B., *Leland Stanford, Jr*.....San Francisco, Cal.
Arndtstein, Louis...................................(Mhtn) New York City
Atkinson, James Northrup, A.B., B.S., *Ottawa University*....Ottawa, Kan.
Atterholt, Frank M., Jr., A.B., *Yale*............................Akron, O.
Bell, William Brown, A.B., *Haverford*..............(Mhtn) New York City
Block, Samuel John, A.B., *Columbia*.................(Mhtn) New York City
Blun, William Stafford, A.B., *University of Georgia*..........Savannah, Ga.
Boardman, Clarence Ide..................................Great Falls, Mont.
Boehm, Lewis Covington, A.B., *St. John's, Md*.............Snow Hill, Md.
Bogue, Morton Griswold, A.B., *Columbia*............(Bklyn) New York City
Bovie, Verne Morgan, A.B., *Marietta*........................Gallipolis, O.
Boyle, Edward Mortimer...........................(Mhtn) New York City
Brine, Francis Joseph....................................Somerville, Mass.
Bullowa, Ralph James M., A.B., *N. Y. City College*...(Mhtn) New York City
Cane, Melville Henry, A.B., *Columbia*...............(Mhtn) New York City
Carlin, Walter Jeffreys............................(Bklyn) New York City
Chapman, Richard Brewster, A.B., *Williams*.............Ogdensburg, N. Y.
Cole, Rudy...Fargo, N. Dak.
Craig, Charles Lacy...Chicago, Ill.
Cram, Wingate Franklin, A.B., *Harvard*.....................Bangor, Me.
Curtis, Henry Shreve......................................Baltimore, Md.
Cushing, Charles Elbridge, A.B., *Yale*...............(Mhtn) New York City
Daignault, Elphège J., A.B., *Boston*....................Woonsocket, R. I.
Darlington, Lionel, B.S., *Cornell;* A.M., *Harvard*........West Chester, Pa.
Davidson, Edmund Montgomery........................Huntington, N. Y.
Davis, John.......................................(Bklyn) New York City
Davis, Lee Parsons..Yonkers, N. Y.
Dean, Maurice Bessell...Dalton, Pa.
De Graffenried, Thomas Pritchett, A.B., *Bethel*............Russellville, Ky.
De Nyse, Rulif...................................(Bklyn) New York City
Desky, Herman Isaac..Elmira, N. Y.
De Yoe, Edgar Ackerman, A.B., *Pennsylvania*..............Ramsey, N. J.
Dippel, John Philip..............................West New York, N. J.
Doherty, Gerald..................................(Mhtn) New York City
Doyle, John Bernard, A.B., *Boston*.......................Brighton, Mass.
Edelstein, Isidore.................................(Mhtn) New York City
Estee, Orville Devere, A.B., *Yale*.....................Gloversville, N. Y.
Fackenthal, Joseph Diehl, A.B., *Columbia*............(Bklyn) New York City
Fassett, Lee...Wellsville, N. Y.
Foster, James Henry...................................Montgomery, Ala.
Frankenthaler, Alfred, A.B., *N. Y. City College*.......(Mhtn) New York City
Freeman, Edward Sale, A.B., *Haverford*............ ....Warren, Pa.

Friedenberg, Albert Marx, B.S., *N. Y. City College*...(Mhtn) New York City
Gearin, Hugh Cornelius.....................................Portland, Ore.
Giddings, Henry Starr, A.B., *Columbia*... ....(Mhtn) New York City
Glenn, Garrard, A.B., *University of Georgia*..................Atlanta, Ga.
Gottlieb, Harry Norman, A.B., *University of Chicago*..........Chicago, Ill.
Green, Charles Tilford...............................Port Chester, N. Y.
Green, Louis Zalmon.................................Binghamton, N. Y.
Gross, Arnold...................................(Mhtn) New York City
Hamilton, Emmet Cuthbert........................(Mhtn) New York City
Hannon, Maurice.................................(Mhtn) New York City
Hardenbergh, Stetson Pratt, A.B., *Rutgers*............New Brunswick, N. J.
Hatcher, Charles Phillips...............................Columbia, Tenn.
Haughawout, James Ard, A.B., *Washington & Jefferson*.....Kylertown, Pa.
Hauschild, George William, A.B., *Northwestern University* (Mhtn) New York City
Hawkins, Elijah, A.B., *Kentucky University*................Lexington, Ky.
Helvie, Roscoe Shively, A.B.. *University of Oklahoma*........Norman, Okla.
Hoffman, Edwin..................................(Mhtn) New York City
Howe, James Robinson, Jr........................(Bklyn) New York City
Isaacs, Algeron.................................(Bklyn) New York City
Ittleman, George Howard.........................(Bklyn) New York City
Jackson, Jerome C., B.S., *N. Y. City College*.........(Mhtn) New York City
Johnson, Tristam Burges.........................(Mhtn) New York City
Kantronich, Samuel.....................................Jersey City, N. J.
Kennan, Ralph Anthony..................................Spokane, Wash.
Knapp, James Rintoul, A.B., *Columbia*........ .. ..(Mhtn) New York City
Knox, Irving Gilliss, A.B., *Yale*....................(Mhtn) New York City
Koener, William Kinney...................................Belleville, Ill.
Kohn, Walter Thomas, A.B., *N. Y. City College*......(Mhtn) New York City
Kostman, Jacob...Jersey City, N. J.
Kramer, Jacob Jerome....................................Johnstown, Pa.
Krause, John Jacob..Chicago, Ill.
Ladd, Harry, B.L., *Dartmouth*............................Epping, N. H.
Lauterstein, Leon...............................(Mhtn) New York City
Lea, Luke, A.B., A.M., *University of the South*...........Nashville, Tenn.
Lea, Overton, Jr., A.B., *University of the South*...........Nashville, Tenn.
Lesinskey, Leo, A.B., *Columbia*....................(Mhtn) New York City
Levis, Robert Percy, A.B., *Rochester University*...........Rochester, N. Y.
Levy, Aaron William, B.S., *N. Y. City College*.......(Bklyn) New York City
Levy, Samuel Samter, A.B., *Yale*................ ....Bloomington, Ill.
Lindheim, Norvin Rudolf, A.B., *Johns Hopkins*..........Greensboro, N. C.
Lockman, Frederic Irving, A.B., *Yale*.... ....(Mhtn) New York City
Lowenstein, Oscar, A.B., *Columbia*..................(Mhtn) New York City
McClure, Arthur John............................(Mhtn) New York City
McCormick, Robert Hall, Jr., A.B., *Yale*...........(Mhtn) New York City
McKee, Douglas..................................(Mhtn) New York City
McKelvey, Charles Wylie, A.B., *Yale*...................Bridgeport, Conn.

McPhee, Raymond Joseph................................Denver, Colo.
Mackey, William Chase, A.B., *Yale*..........................Franklin, Pa.
Madigan, James C., A.B., *N. Y. City College*.........(Mhtn) New York City
Marsh, Robert McCurdy, A.B., A.M., *Harvard*.............Paterson, N. J.
Martin, Henry Lewis, Jr., A.B., *Washington and Lee University*..Midway, Ky.
Meany, Edward Behr..Newark, N. J.
Mellor, Fred....................................(Mhtn) New York City
Merrick, Henry Spencer...................................Ottumwa, Ia.
Mersereau, Henry Carl..................................Syracuse, N. Y.
Merwin, James Hervey, A.B., *Hamilton*......................Utica, N. Y.
Michaelis, Arnold, A.B., *N. Y. City College*..........(Mhtn) New York City
Milan, Charles N...................................Long Branch, N. J.
Miller, Henry Cook, A.B., *Hamilton*..........................Bath, N. Y.
Miller, John Norris, A.B., *Princeton*....................Washington, D. C.
Miller, Rutger Bleecker, A.B., *Yale*....................Washington, D. C.
Moore, John Russell, A.B., *Austin College*.................Sherman, Tex.
Morris, Lee, A.B., *University of Georgia*......................Athens, Ga.
Moses, Henry Leo, A.B., *Yale*..............................Scranton, Pa.
Moulthrop, John Robert, B.L., *University of California*..San Francisco, Cal.
Murphy, Joseph Francis Xavier, A.B., *Holy Cross College*
(Bklyn) New York City
O'Brien, Thomas Edward, A.B., *Columbia*...........(Bklyn) New York City
O'Neil, Frank Smith, A.B., *Canisius College*.............Binghamton, N. Y.
O'Neil, Joseph Simon, A.B., *Canisius College*...........Binghamton, N. Y.
Ogden, Charles Jones, A.B., *Columbia*...............(Mhtn) New York City
Oviatt, Percival De Witt, A.B., *University of Rochester*.....Rochester, N. Y.
Palmer, Roland Swift, A.B., *Yale*..........................Amenia, N. Y.
Patterson, Arthur Coxe, A.B., *Williams*..............(Mhtn) New York City
Patterson, Edmund De Witt, A.B., *Vanderbilt University*...Savannah, Tenn.
Pettit, William Soper..............................Far Rockaway, N. Y.
Pheil, John Grant, A.B., *Baldwin University*.................Mansfield, O.
Philipp, Philip Bernard, A.B., *Harvard*..............(Mhtn) New York City
Pilcher, Stuart Carothers................................Nashville, Tenn.
Pitkin, Harry Walton, A.B., *Wooster University*............Mt. Vernon, O.
Pulliam, Charles Le Count, A.B., A.M., *Wabash*.........Terre Haute, Ind.
Redington, Edward John, A.B., *Yale*......................Syracuse, N. Y.
Rendell, George Eben....................................Mexico, N. Y.
Reynolds, Richard Samuel, B.S., *King*.....................Bristol, Tenn.
Rivera, Eulogio, A.B., *Puerto Rico de Instituto Provincial*
San Juan, Puerto Rico
Royall, John Ralph......................................Lebanon, Conn.
Royse, Samuel Durham, A.B., *Amherst*.................Terre Haute, Ind.
Ryan, Peter Frank, B.S., *Villanova College*.............North Adams, Mass.
Ryttenberg, Clarkson Potter.........................(Mhtn) New York City
Sapinsky, Joseph, LL.B., *University of Louisville*...........Louisville, Ky.
Schley, Chaloner Baker, Ph.B., *Yale*......................Far Hills, N. J.
Seaman, Frederic Cromwell.........................(Bklyn) New York City

Seggel, Otto Frederick	Jersey City, N. J.
Shaffer, Newton Melman, Jr.	(Mhtn) New York City
Shapiro, Benjamin	(Mhtn) New York City
Shenkowitz, Warren Augustus	Dubuque, Ia.
Shidloosky, Jacob	(Mhtn) New York City
Shwitzer, Samuel David	(Mhtn) New York City
Sladkus, Solomon Edmund	(Mhtn) New York City
Sloane, James Renwick, A.B., *Princeton*	(Mhtn) New York City
Snyder, Francis Xavier	(Bklyn) New York City
Solomon, Louis Arlington, B.S., *N. Y. City College*	(Mhtn) New York City
Spencer, Edwin Martin	St. Joseph, Mo.
Steinbock, Henry	(Mhtn) New York City
Stern, Walter Thomas, A.B., *Yale*	(Mhtn) New York City
Stickney, Henry Austin, A.B., *Harvard*	(Mhtn) New York City
Suling, John William, A.B., *N. Y. City College*	(Mhtn) New York City
Sullivan, James Charles	Butte, Mont.
Symes, John Foster, Ph.B., *Yale*	Denver, Colo.
Tatum, Edward H., A.B., *Yale*	(Mhtn) New York City
Terry, Roderick, Jr., A.B., *Yale*	(Mhtn) New York City
Thomas, Clarence Lot, A.B., *Leland Stanford, Jr*	Storm Lake, Ia.
Turner, William Andrew, A.B., *Black Hills College*	Coin, Ia.
Tyson, Frank Leighton	Western, Neb.
Vetsburg, Karl Max	St. Louis, Mo.
Victor, Royall Charles, A.B., *Leland Stanford, Jr*	San Bernardino, Cal.
von Pein, Henry Emil	Kitchawan, N. Y.
Walker, Thaddeus Lincoln	Guttenberg, N. J.
Walmsley, Hardie Barr	New Orleans, La.
Welch, Aloysius Joseph, A.B., *Santa Clara College*	San Francisco, Cal.
Welch, Walter Frederick, A.B., *Tufts College*	Stoneham, Mass.
Wheeler, Ernest Edward, A.B., *Harvard*	(Mhtn) New York City
Whitehouse, Harold Newall	(Bklyn) New York City
Williams, Louis Oren	Pittsburg, Pa.
Williamson, Pliny Wilson, A.B., *Oberlin*	Dayton, O.
Woodward, Edgar Hunt, A.B., *Williams*	(Mhtn) New York City
Zimmerman, John Clark	Wooster, O.
First Year	172

SPECIAL STUDENTS

Sears, Herman Dingwell, A.B., *Middleburg College*	Northampton, Mass.
Weimert, Orson John, LL.B., *Columbia*	Buffalo, N. Y.
Special Students	2

SUMMARY

Third Year Class	100
Second Year Class	148
First Year Class	172
Special Students	2
Total	422

SCHOOL OF MEDICINE

COLLEGE OF PHYSICIANS AND SURGEONS

The instruction in medicine is given under the following departments:

ANATOMY
BACTERIOLOGY
CHEMISTRY, GENERAL
CHEMISTRY, PHYSIOLOGICAL
CLINICAL PATHOLOGY
DERMATOLOGY
DISEASES OF CHILDREN
GENITO-URINARY AND VENEREAL DISEASES
GYNECOLOGY
HISTOLOGY
LARYNGOLOGY
MATERIA MEDICA AND THERAPEUTICS
NEUROLOGY
OBSTETRICS
OPHTHALMOLOGY
OTOLOGY
PATHOLOGY
PHYSICS
PHYSIOLOGY
PRACTICE OF MEDICINE
SURGERY

Officers of the Faculty

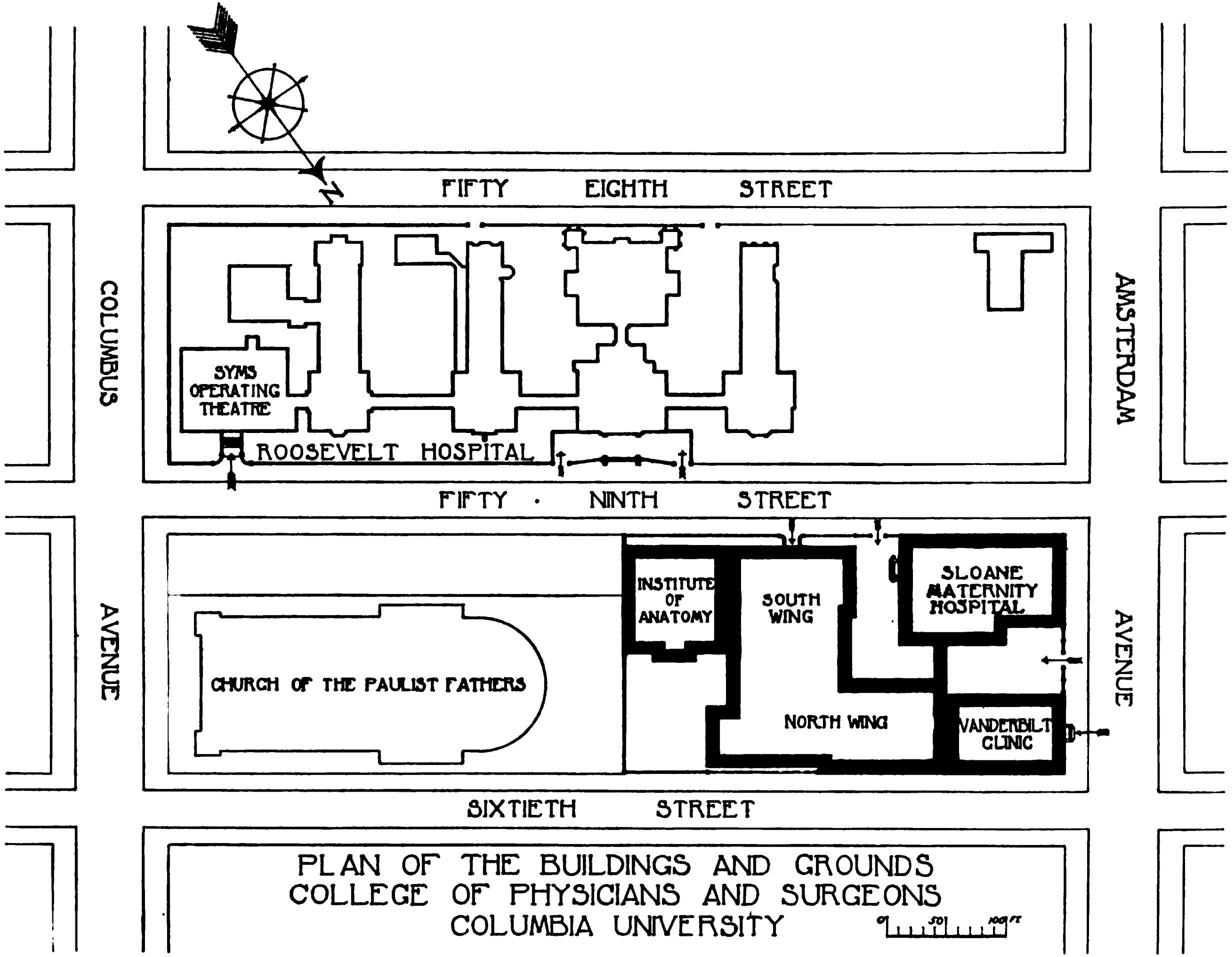
JAMES W. MCLANE, M.D.	*Dean and Ex-Officio Member of the University Council*
JOHN G. CURTIS, M.D.	*Elected Delegate to the University Council*
JAMES DITMARS VOORHEES, M.D.	*Secretary*

The Faculty

SETH LOW, LL.D., *President.*

FRANCIS DELAFIELD, M.D., *Professor of the Practice of Medicine*
JOHN G. CURTIS, M.D., *Professor of Physiology*
GEORGE M. TUTTLE, M.D., *Professor of Gynecology*
GEORGE L. PEABODY, M.D., *Professor of Materia Medica and Therapeutics*
WILLIAM T. BULL, M.D., *Professor of Surgery*
M. ALLEN STARR, M.D., Ph.D., LL.D., *Professor of Diseases of the Mind and Nervous System*
GEORGE S. HUNTINGTON, M.D., *Professor of Anatomy*
ROBERT F. WEIR, M.D., *Professor of Surgery*
T. MITCHELL PRUDDEN, M.D., LL.D., *Professor of Pathology, Director of the Laboratories of Histology, Pathology, Bacteriology, and Clinical Pathology*
EDWIN B. CRAGIN, M.D., *Professor of Obstetrics*

NOTE.—For details as to other officers of instruction, see departmental statements.


FIFTY EIGHTH STREET
N
COLUMBUS
AVENUE
AMSTERDAM
AVENUE
SYMS OPERATING THEATRE
ROOSEVELT HOSPITAL
FIFTY · NINTH STREET
INSTITUTE OF ANATOMY
SOUTH WING
SLOANE MATERNITY HOSPITAL
CHURCH OF THE PAULIST FATHERS
NORTH WING
VANDERBILT CLINIC
SIXTIETH STREET
0 50 100 FT

PLAN OF THE BUILDINGS AND GROUNDS
COLLEGE OF PHYSICIANS AND SURGEONS
COLUMBIA UNIVERSITY

GENERAL STATEMENT

The College of Physicians and Surgeons, on July 1, 1891, became, under the authority of the Legislature, a part of Columbia University. This merger, which makes the medical department in a complete sense an integral part of the University system, largely increases the usefulness of the Medical School, favors the thoroughness of scientific medical education, and promotes scientific research. The accessions to the teaching force, notably in the Departments of Anatomy and Pathology and in the physiological and other laboratories, permit the realization, to a degree previously quite impossible, of the great opportunities for instruction and research afforded by the excellence of the dissecting-rooms, the laboratories, and apparatus.

The college occupies a group of buildings, given by the late William H. Vanderbilt and members of his family, and by William D. Sloane, Esq., which stand upon thirty contiguous lots of land, bounded on the south, west, and north by Fifty-ninth Street, Amsterdam Avenue, and Sixtieth Street, respectively, and lying immediately opposite to Roosevelt Hospital.

The buildings appertaining to the college are three in number:

THE COLLEGE BUILDING PROPER;
THE VANDERBILT CLINIC;
THE SLOANE MATERNITY HOSPITAL.

THE COLLEGE BUILDING PROPER has been designed to facilitate that combination of didactic instruction with laboratory work which is essential to a modern scientific training. It consists of a *southern portion*, measuring 140 feet by 43 feet, extending along Fifty-ninth Street; of a *northern portion*, 96 feet by 43 feet, extending along Sixtieth Street; and of a *middle portion*, 96 feet by 55 feet, connecting the other two. The total area covered is therefore 15,428 square feet. Each story above the basement of the northern and southern portions has been built "in the clear," and contains neither brick partitions nor iron columns. It is therefore possible to remodel the interior at any future time.

Through the generous gift of Messrs. Cornelius, William K., Frederick W., and George W. Vanderbilt, in 1895, there was rendered possible an important enlargement of the college building proper, to provide additional facilities for anatomical teaching and for practical work in Pathology and Bacteriology.

The south wing of the college was extended on Fifty-ninth Street eastward for 55 feet, the depth of the new wing being 80 feet. This building is four stories high and is devoted to the Department of Anatomy. The basement contains the cast and modelling rooms, the corrosion room, and the reference osteological collection. The first and second stories are occupied by the Museum of Human and Comparative Morphology, the first floor being provided with a gallery, greatly increasing the available floor space.

The Morphological Research Laboratory occupies the third story of the anatomical building, affording ample accommodations for the researches of the officers of the department and for post-graduate students.

The fourth floor forms an extension to the original dissecting-room. The classroom for practical anatomy will accommodate over four hundred students, and by means of the artificial cooling plant work can be carried on without regard to the outside temperature.

The north end of the fourth floor is occupied by a small auditorium for anatomical demonstrations. It has overhead light and an arrangement of seats carefully planned so as to bring each member of the section close to the object of the demonstration.

The two upper floors of the building over the Vanderbilt Clinic extension were made continuous with the space formerly occupied by the Department of Pathology, and the whole is devoted to the work of this department in Pathology, Bacteriology, Clinical Microscopy, Normal Histology, and Photography, and to such an extension of these as the plans of the four-years course require. There is on the fifth floor in addition to the large class laboratories a series of larger and smaller rooms for advanced students and research work in Bacteriology. On the fourth floor there is a large laboratory for special advanced students in Pathology and for research, a series of private rooms for the instructors, and a departmental library.

Vanderbilt Clinic

THE VANDERBILT CLINIC was built and endowed by the sons of William H. Vanderbilt as a memorial of their father. It supplies a fully equipped dispensary service for the sick poor. It also affords ample material for extended practical clinical instruction in the various departments of medicine and surgery, as the professors, with their clinical assistants, have the entire charge of its practice.

The original building having proved inadequate, the sons of Mr. Vanderbilt in 1895 united in an additional gift of $350,000, enabling the size of the building to be doubled. In the enlarged building, ample space is provided, not only for the reception of the constantly increasing number of patients, but also for the instruction of the students in small classes in each of the ten different departments. Two large dark rooms with twenty stalls are provided for instruction in the use of the ophthalmoscope and laryngoscope. Each department has a room for the practical instruction of small groups of students, in addition to the rooms devoted to the treatment of patients. There is a large theatre for the clinical lectures, accommodating about four hundred students, and a smaller lecture hall where one hundred can be seated.

All modern appliances for the treatment of diseases have been introduced, so that students can learn thoroughly the use of all methods in each department, and thus can acquire a practical knowledge of all the "specialties" in medicine.

During the year 1899, 48,742 patients were treated, making 151,864 visits to the Clinic.

Sloane Maternity Hospital

THE SLOANE MATERNITY HOSPITAL is situated upon the grounds of the College of Physicians and Surgeons, and the service is under the exclusive direction of the Professor of Obstetrics in the college, the Instructor in Obstetrics being the Resident Physician.

The wards of the hospital since its recent enlargement furnish one hundred and sixteen beds, and there are ample accommodations for the House Staff, students, and nurses.

The operating-room is equipped with all modern surgical and obstetrical conveniences and has a seating accommodation for fifty-one students.

The number of deliveries averages over eleven hundred a year. These, with the obstetric operations and the subsequent treatment of women and infants, afford invaluable practical experience, such as is offered at no other medical school in this country.

REQUIREMENTS FOR ADMISSION

No entrance examinations are conducted at the College of Physicians and Surgeons, but all students who matriculate with the intention of becoming candidates for the degree of Doctor of Medicine must present

a medical-student certificate from the Regents of the University of the State of New York.

Students desiring to do special work may matriculate at any time during the year as special students. Such applicants, however, cannot subsequently become candidates for graduation without full compliance with the terms of admission and graduation as set forth in the Announcement.

CURRICULUM

The work required of the students at this college who are candidates for the degree of M.D. covers four years of study according to the curriculum set forth below in outline.

The right is reserved to make amendments to this curriculum as experience may prove necessary.

Programmes of the exercises, giving time and place, will be distributed among the matriculants at the beginning of each annual session.

The following statement is drawn up from the point of view of the student, and shows what is expected from each matriculant taking the regular curriculum.

In all subjects which are not completed in a single year the instruction offered to a given student will be different each year.

The regular instruction for 1900–1901 began on Monday, October 1, 1900, at 11 A.M. Commencement will be on Wednesday, June 12, 1901.

Every student intending to be a candidate for the degree of M.D. must register his name in person within the first seven working days of each session.

Students who have pursued elsewhere courses in Physics and General Chemistry substantially equivalent to those given at this college may be exempted from the work in those subjects on presentation of satisfactory certificates or after satisfactory examination.

First Year

PHYSICS.

Lectures, combined with demonstrations, 3 a week for one half of the year.

Laboratory Work, 3-hour exercises once a week for one half the year.

GENERAL CHEMISTRY.

Lectures, 2 a week.

Conferences, 2 a week for one half the year.

Laboratory Work, 2-hour exercises twice a week for one half the year.

ANATOMY, begun.

Demonstrations to sections, 4 a week for each student.

Laboratory Work in dissection, 18 to 20 hours a week, for from 3 to 5 periods of 4 weeks each.

NORMAL HISTOLOGY, begun.

Laboratory Work, 2-hour exercises 3 times a week for one half the year.

PHYSIOLOGY, begun.

Lectures combined with demonstrations, 3 a week.

Demonstrations to sections, 1 a week for each student.

EXAMINATIONS upon the work of the first year.

Second Year

ANATOMY, finished.

Lectures combined with demonstrations, 3 a week.

Demonstrations to sections, 4 a week for each student for one half the year; 5 a week for each student for one half the year.

Laboratory Work in dissection, 10 to 12 hours a week, for from 1 to 3 periods of 4 weeks each.

NORMAL HISTOLOGY, finished.

Laboratory Work, 2-hour exercises twice a week for one half the year.

PHYSIOLOGY, finished.

Lectures combined with demonstrations, 3 a week.

Demonstrations to sections, 1 a week for each student.

PHYSIOLOGICAL CHEMISTRY.

Lectures with occasional demonstrations, 1 a week for one half the year for each student.

Conferences combined with *Recitations*, 1 a week for one half the year.

Laboratory Work, 2-hour exercises 3 times a week for one half the year.

PATHOLOGICAL ANATOMY, begun; the technique of autopsies.

Attendance at Autopsies, with practical instruction, once a week for 8 weeks.

BACTERIOLOGY AND HYGIENE.

Laboratory Work, 2-hour exercises 3 times a week for one fourth the year.

MATERIA MEDICA AND THERAPEUTICS, begun.

Lectures, 3 hours a week.

OBSTETRICS AND GYNECOLOGY, begun.

Recitations combined with demonstrations to sections, 1 a week for each student.

EXAMINATIONS upon the work of the second year.

Third Year

MATERIA MEDICA AND THERAPEUTICS, finished.

Lectures, 2 a week.

PATHOLOGICAL ANATOMY, finished.

Demonstrations to sections, 2 a week for each student.

GENERAL PATHOLOGY AND PATHOLOGICAL HISTOLOGY.

Laboratory Work, 2-hour exercises 3 times a week for one half the year.

THE PRACTICE OF MEDICINE, begun.

Lectures, 3 a week.

Clinical Lectures at the Vanderbilt Clinic, once a week.

Clinical Lectures or Instruction in the wards at the Roosevelt Hospital, once a week; at the New York Hospital, once a week for one half the year; in the wards of St. Mary's Free Hospital for Children to sections, for each student, 1 a week for 4 weeks.

Practical Clinical Instruction to sections in physical diagnosis, for each student, twice a week for 16 weeks.

DISEASES OF THE MIND AND NERVOUS SYSTEM, begun.

Lectures, 1 a week, October to March.

THE PRINCIPLES AND PRACTICE OF SURGERY, begun.

Lectures, 1 a week.

Recitations, 3 a week.

Surgical Demonstrations, at the Presbyterian Hospital, 1 a week.

Clinical Lectures, at the Vanderbilt Clinic, 2 a week.

Clinical Lectures and the witnessing of operations at the Roosevelt, New York, or Presbyterian Hospital, 1 a week.

Practical Clinical Instruction, to sections, for each student, 2 a week for 16 weeks at the Vanderbilt Clinic and Out-patient Department of the Roosevelt Hospital; 1 a week for 4 weeks at St. Mary's Free Hospital for Children.

Required of students of the *third-year* class by sections.

Optional—Clinical Lectures and the witnessing of operations additional to the above at the following hospitals: The New York, Presbyterian, St. Luke's, St. Mary's Free Hospital for Children, and the General Memorial Hospital.

OBSTETRICS, continued.

Lectures, 3 a week, October to March.

GYNECOLOGY, continued.

Lectures, 3 a week, March to May.

Clinical Lectures at the Vanderbilt Clinic, 1 a week.

Clinical Lectures and the witnessing of operations at the Roosevelt Hospital by sections, 6 exercises for each student.

Practical Clinical Instruction to sections, 6 exercises for each student.

VENEREAL AND GENITO-URINARY DISEASES.

Clinical Lectures at the Vanderbilt Clinic, 1 a week.

Clinical Lectures and the witnessing of genito-urinary operations at Bellevue Hospital, 1 a week for one half the year.

Practical Clinical Instruction to sections, 10 exercises for each student.

DISEASES OF THE EYE.

Clinical Lectures at the Vanderbilt Clinic, 1 a week.

Practical Instruction to sections in the use of the ophthalmoscope and in the functional examination of the eye, 10 exercises for each student.

Optional—Practical Clinical Instruction to sections at the New York Ophthalmic and Aural Institute.

DISEASES OF THE EAR.

Practional Clinical Instruction to half-sections, from 6 to 8 exercises for each student.

Four Didactic Lectures (delivered separately to each section, and in combination with a recitation) on general aural pathology and therapeutics.

EXAMINATIONS upon the work of the third year.

Fourth Year

THE PRACTICE OF MEDICINE, finished.

Lectures, 3 a week.

Clinical Lectures at the Vanderbilt Clinic, 2 a week.

Clinical Lectures or Instruction in the wards at the Roosevelt Hospital, once a week; at the New York Hospital, once a week for three months.

Practical Clinical Instruction to sections in the wards of the Roosevelt, Bellevue, or Presbyterian Hospital, for each student, 2-hour exercises 3 times a week for 8 weeks.

Optional—Clinical Instruction in Bellevue and Presbyterian Hospitals, once a week.

DISEASES OF THE MIND AND NERVOUS SYSTEM, finished.

Lectures, 1 a week, October to March.

Clinical Lectures at the Vanderbilt Clinic, once a week.

Practical Clinical Instruction to sections in the diagnosis of diseases of the nervous system, 10 exercises for each student.

CLINICAL PATHOLOGY.

Laboratory Work, 2-hour exercises 3 times a week for 8 weeks.

THE PRINCIPLES AND PRACTICE OF SURGERY, finished.

Lectures, 1 a week.

Recitations, 2 a week.

Clinical Lectures at the Vanderbilt Clinic, 2 a week.

(1) *Required—Clinical Lectures* and the witnessing of operations by sections at the Roosevelt Hospital, 2 a week, or at the New York Hospital, 1 a week.

(2) *Surgical Demonstrations* at the Roosevelt Hospital, one half the class 1 a week for one half the year.

(3) *Practical Clinical Instruction* in the wards at Roosevelt and Bellevue Hospitals for 2 hours 3 days a week for 7 weeks for each section.

(4) *Operative Surgery* on the Cadaver, 12 lessons for each student.

(5) *Minor Operations* at the Vanderbilt Clinic, 1 a week.

Optional—Clinical Lectures and the witnessing of operations at the New York Hospital additional to the above, and at the Presbyterian, Bellevue, St. Luke's, St. Mary's, and General Memorial Hospitals.

ORTHOPÆDIC SURGERY.

Clinical Lectures at the Vanderbilt Clinic, 1 a week.

Practical Clinical Instruction to sections, 10 exercises for each student.

OBSTETRICS, finished.

Two weeks' residence at the Sloane Maternity Hospital and attendance upon confinements.

Practical Clinical Instruction to sections, at the Sloane Maternity Hospital, for each student, daily for 1 week.

GYNECOLOGY, finished.
Clinical Lectures at the Vanderbilt Clinic, 1 a week.

DISEASES OF CHILDREN.
Clinical Lectures at the Vanderbilt Clinic, 1 a week.
Practical Clinical Instruction to sections, 10 lessons for each student.

DISEASES OF THE SKIN.
Clinical Lectures at the Vanderbilt Clinic, 1 a week.
Practical Clinical Instruction to sections, 10 lessons for each student.

DISEASES OF THE THROAT AND NOSE.
Clinical Lectures at the Vanderbilt Clinic, 1 a week.
Practical Clinical Instruction to sections, 10 lessons for each student.

EXAMINATIONS upon the work of the fourth year.

Clinics at the Vanderbilt Clinic

Eleven clinics are given each week at the Vanderbilt Clinic, as follows:

SURGERY—Professor BULL, Thursdays, 12 M.; Professor WEIR, Mondays, 12 M.

ORTHOPÆDIC SURGERY—Professor GIBNEY; Fridays, 12 M.

DISEASES OF THE THROAT AND NASAL PASSAGES—Professor LEFFERTS; Mondays, 2 P.M.

DISEASES OF THE SKIN—Professor FOX; Mondays, 3 P.M.

DISEASES OF THE EYE—Professor KNAPP; Tuesdays, 2 P.M.

DISEASES OF CHILDREN—Professor JACOBI; Wednesdays, 2 P.M.

VENEREAL AND GENITO-URINARY DISEASES—Professor TAYLOR; Thursdays, 2 P.M.

MEDICAL—Professor DELAFIELD; Thursdays, 3 P.M.

DISEASES OF THE MIND AND NERVOUS SYSTEM—Professor STARR; Fridays, 2 P.M.

GYNECOLOGICAL—Professor TUTTLE; Fridays, 3 P.M.

Hospital Clinics

See the several departments.

Besides the Vanderbilt Clinic, the general and special hospitals of New York afford most important fields for clinical teaching. This college is strongly represented on the staffs of these institutions, and regular clinical instruction at hospitals is made a prominent feature of the curriculum. *Admission is free* to all matriculated students. At all the following hospitals instruction is given by officers of the college.

SLOANE MATERNITY HOSPITAL, corner of Fifty-ninth Street and Amsterdam Avenue.

ROOSEVELT HOSPITAL—This has long been the seat of thorough clinical work, and has become of special importance in this respect from its position immediately opposite the buildings of the College of Physicians and Surgeons upon Fifty-ninth Street, between Ninth and Tenth Avenues. Moreover, this hospital, a few years ago, received a bequest of several hundred thousand dollars for the erection and endowment of THE SYMS OPERATING THEATRE, which now offers unrivalled facilities for instruction in operative surgery.

THE McLANE OPERATING THEATRE is used for operative gynecology by Professor Tuttle exclusively.

The Roosevelt is a general hospital of one hundred and ninety-five beds, and it also possesses a flourishing out-patient department.

Public clinics are given here as follows, throughout the college session:

Medical—Mondays, at 4 P.M., Professors DELAFIELD and PEABODY

Surgical—Saturdays, at 3 P.M., Professor WEIR; Tuesdays, at 3.15 P.M., Professor BULL

Gynecological—Tuesdays, Thursdays, and Saturdays, at 2.30 P.M., Professor TUTTLE

Children's—Mondays and Thursdays, at 5 P.M., Professor JACOBI

NEW YORK HOSPITAL, Fifteenth Street, between Fifth and Sixth Avenues.

This is a general hospital of the highest class, of one hundred and fifty beds, with an out-patient department.

The public clinics are the:

Medical—Saturdays, at 10.30 A.M., from November to May, Professors PEABODY and BALL

Surgical—Saturdays, at 11.30 A.M. or 3.15 P.M., October to June, Professors HARTLEY and MARKOE

BELLEVUE HOSPITAL, Twenty-sixth Street and East River.

This hospital has eight hundred and fifty beds and receives sixteen thousand patients annually, of whom one fourth are in the exclusive charge of officers of this college.

The service of the out-patient department also covers a great range of practice; and two newly built operating theatres, a large and a smaller one, are in full use.

The following clinic is held here during the session:

Venereal and Genito-Urinary—Tuesdays, 3.30 P.M., Professor TAYLOR

ST. LUKE'S HOSPITAL, Morningside Heights, One Hundred and Thirteenth Street and Amsterdam Avenue.

Surgical—Fridays, at 2.30 P.M.; Drs. MARKOE and ABBE

PRESBYTERIAN HOSPITAL, Madison Avenue and Seventieth Street.

This is a large general hospital of three hundred and thirty beds. The following clinics will be held here throughout the session:

Surgical—Tuesdays, 2.30 P.M., Dr. McCOSH; Wednesdays, 3.30 P.M., Dr. ELIOT

Medical—December to May, Tuesdays, 3.30 P.M., Professor KINNICUTT

GENERAL MEMORIAL HOSPITAL, One Hundred and Sixth Street and Eighth Avenue.

Two clinics a week are held here, viz.:

Surgical—Mondays, 9 A.M., Dr. CHARLES N. DOWD; Wednesdays, 9 A.M., Dr. WILLIAM B. COLEY

Gynecological—Tuesdays, 9 A.M., Dr. GEO. W. JARMAN

New York Ophthalmic and Aural Institute, 44 and 46 East Twelfth Street.

This hospital has forty beds, and a large daily dispensary service is held for diseases of the eye and ear. Throughout the session the following clinic is held:

Ophthalmological—(Admission by invitation of sections.) Selected cases for diagnosis and treatment; and most important operations on the eye. Wednesdays, 2 to 3.45 P.M. Professor KNAPP

Hospital for the Ruptured and Crippled, cor. Lexington Avenue and Forty-third Street.

The following clinics are held here, viz.:

Tuesdays and Fridays, 8.30 A.M., November to July, Professors GIBNEY and BULL

Out-Patient Clinic—Tuesdays, Thursdays, and Saturdays, 1 to 3 P.M., Dr. WHITMAN

St. Mary's Free Hospital for Children, 405 and 407 West Thirty-fourth Street.

Three clinics a week are held here, viz.:

Th., 10.30–11.30 A.M., Dr. CHARLES T. POORE

Tu. and Wed., 10 A.M., Dr. CHARLES N. DOWD and Dr. G. M. SWIFT

BOARD

Information in regard to board can be obtained through the Registrar, Mr. E. T. Boag, at his office in the Medical School. Prices range from $5 to $9 per week.

CORRESPONDENCE

Letters requesting information should be addressed to Secretary of the Faculty, 437 West Fifty-ninth Street, New York.

EXAMINATIONS AND STANDING

Each student must be examined at the close of each session upon the work of that session.

A second examination, for candidates found deficient at the close of the first, second, or third year's work, will be held during the week before the opening of the following session.

Exemption from Physics and General Chemistry

1. Persons who have pursued successfully at colleges, scientific schools, or universities, courses in Physics, or General Chemistry, or both, substantially equivalent to those given to medical students at this University, may be exempted from the first-year work in either or both of the above subjects on presentation of properly authenticated certificates from the institutions at which the said courses were pursued.

2. Persons who have pursued elsewhere than at colleges, scientific schools, or universities, courses in Physics, or General Chemistry, or both, claimed to be substantially equivalent to those given to medical students at this University,

may be exempted from the first-year work in either or both of the above subjects on passing satisfactory examinations both theoretical and practical.

Admission to Advanced Standing

Admission may be granted to advanced standing at the beginning of the second or of the third year, but not of the fourth year without the special consent of the Faculty.

Every applicant for advanced standing will be required (1) to present satisfactory evidence of having attended, in a recognized medical school (or, *for General Chemistry or Physics* in a recognized college, scientific school, or university), courses reasonably equivalent to those already attended by the class to which he seeks admission; (2) to be examined for admission in all the subjects in which the said class shall have been examined already; (3) to present a medical-student certificate from the Regents of the University of the State of New York; (4) to matriculate with the payment of the regular matriculation fee (five dollars).

A candidate for admission to advanced standing at the beginning of the second or third year may be so admitted either unconditionally or conditionally. In the latter case, his admission will be upon the same terms as govern students who have pursued at this college the curriculum of the first or second year.

During the week before the opening of each session there will be held examinations upon the work done during the previous session in each department of the first, second, and third years of the course, which examinations will be open both to candidates found deficient at the end of the previous session, and to candidates for admission to advanced standing at the beginning of the second, third, or fourth year.

Standing at the End of the First Year

The standing of a student for the first year will be determined as follows:

Anatomy.

(1) A record of practical work during the year.
(2) A practical examination in Anatomy.
(3) A written examination, of a length to be determined by the Professor, and to be judged directly by him.

Physiology.

A written examination of a length to be determined by the Professor, and to be judged directly by him, upon the subjects covered by the lectures and demonstrations of the year.

Normal Histology.

(1) A record of practical work during the year.
(2) A practical examination in Normal Histology.
(3) A written examination, of a length to be determined by the Professor of Pathology.

General Chemistry.

(1) A record of practical work during the year.
(2) A practical examination.
(3) An examination in writing.

Physics.

(1) A record of practical work during the year.
(2) A practical examination.
(3) An examination in writing.

A bad record of practical work in a department may bar a student from examination; or a bad practical examination may bar him from an examination in writing; the result in either case being failure in the year's work in that department.

No student will be permitted to advance with his class from the first to the second year unless his standing shall have been found satisfactory, before the beginning of the work of the second year, in four out of the five departments of (1) Physics; (2) General Chemistry; (3) Anatomy; (4) Normal Histology; (5) Physiology.

A student found deficient in the autumn in more than one subject of the first year will be obliged to repeat the work of the year in all the departments in which he shall have been found deficient, and to pay a tuition fee of $50 per department, provided the amount thus charged does not exceed the tuition of the year.

A student found still deficient at the end of the second year in one of the subjects of the first year may advance with his class provided he fails at the spring examination in not more than one of the studies of the second year, and provided that he makes good his deficiency in the first-year study before entering upon the work of the third year.

Standing at the End of the Second Year

The standing, in the respective departments, of a student at the end of his second year will be based upon the following tests, to be applied by, or under the direction of, the Professor in charge of the department unless otherwise expressly specified:

Anatomy.

(1) A record of practical work during the year.
(2) A practical examination in Anatomy.
(3) A written examination, of a length to be determined by the Professor, and to be judged directly by him.

Normal Histology.

(1) A record of practical work during the year.
(3) A practical examination in Normal Histology.
(3) A brief written examination, of a length to be determined by the Professor of Pathology.

Physiological Chemistry.

(1) A record of practical work during the year.
(2) The filing of a satisfactory book of notes upon the laboratory work of the entire course.
(3) A written examination upon the lectures, conferences, and practical work of the course, the length and character of the examination to be determined by the Director of the department.

Physiology.

A written examination, of a length to be determined by the Professor, and to be judged directly by him, upon the subjects covered by the lectures and demonstrations of the year.

Materia Medica and Therapeutics.

A written examination, of a length to be determined by the Professor, and to be judged directly by him, upon the subjects covered by the instruction of the year.

Bacteriology and Hygiene.

(1) A record of practical work during the year.
(2) A practical examination in Bacteriology.
(3) A brief written examination, of a character to be determined by the Professor of Pathology.

Pathological Anatomy.

Attendance at autopsies. No tests.

Obstetrics.

A written examination, of a length to be determined by the Professor, upon the subjects covered by the instruction of the year.

Gynecology.

A written examination, of a length to be determined by the Professor, upon the subjects covered by the instruction of the year.

No student will be permitted to advance with his class from the second to the third year unless (A) his standing shall have been found satisfactory, before the beginning of the work of the third year, in *six* out of the *eight* studies of (1) Physiology, (2) Materia Medica and Therapeutics, (3) Obstetrics, (4) Gynecology, (5) Anatomy, (6) Normal Histology, (7) Bacteriology and Hygiene, (8) Physiological Chemistry; and unless (B) the six studies in which his standing shall have been found satisfactory, as above, include not less than two of the following four studies, viz.: (1) Anatomy, (2) Normal Histology, (3) Bacteriology and Hygiene, and (4) Physiological Chemistry.

A student of the second year found deficient according to the terms of the above may be permitted to advance with his class, but must make good all deficiencies before entering upon the exercises of his fourth year.

The annual examinations will be held after the close of the second year's instruction; and further examinations, for candidates found deficient, will be held during the week before the opening of the following session.

A candidate for admission to advanced standing at the beginning of the third year may be so admitted either unconditionally or conditionally. In the latter case, his admission will be upon the same terms as govern students who have pursued at this college the curriculum of the second year.

Standing at the End of the Third Year

The standing, in the respective departments, of a student at the end of his third year will be based upon the following tests, to be applied by, or under the direction of, the Professor in charge of the department, unless otherwise expressly specified:

Materia Medica and Therapeutics.

A written examination, of a length to be determined by the Professor, and to be judged directly by him, upon the subjects covered by the instruction of the year.

Pathological Anatomy.

Attendance at demonstrations. A written examination, with Pathological Histology.

Pathological Histology.

(1) A record of practical work during the year.
(2) A practical examination in Pathological Histology.
(3) A written examination, of a length to be determined by the Professor of Pathology, and to be judged directly by him.

The Practice of Medicine.

(1) A record of practical work during the year in Physical Diagnosis.
(2) A written examination, of a length to be determined by the Professor, and to be judged directly by him, upon the subjects covered by the instruction of the year.

Diseases of the Mind and Nervous System.

A written examination, of a length to be determined by the Professor, and to be judged directly by him, upon the subjects covered by the instruction of the year.

The Principles and Practice of Surgery.

(1) A record of practical work during the year in Clinical Surgery.
(2) A written examination, of a length to be determined by the Professors, and to be judged directly by them, upon the subjects covered by the instruction of the year.

Obstetrics.

A written examination, of a length to be determined by the Professor, and to be judged directly by him, upon the subjects covered by the instruction of the year.

Gynecology.

(1) A record of practical work during the year in Clinical Gynecology.
(2) A written examination, of a length to be determined by the Professor, and to be judged directly by him, upon the subjects covered by the instruction of the year.

Venereal Diseases.

(1) A record of practical work during the year.
(2) A written examination, upon the subjects covered by the instruction of the year, to be conducted and judged by the Professor.

Diseases of the Eye.

(1) A record of practical work during the year.
(2) A written examination upon the subjects covered by the instruction of the year, to be conducted and judged by the Professor.

Diseases of the Ear.

(1) A record of practical work during the year.

(2) A written examination upon the subjects covered by the instruction of the year, to be conducted and judged by the Professor.

No student will be permitted to advance with his class from the third to the fourth year unless he presents satisfactory records of practical work in Pathological Histology, Physical Diagnosis, Clinical Surgery, Clinical Gynecology, Venereal Diseases, Diseases of the Eye, and Diseases of the Ear.

By a satisfactory record is meant a certificate of punctual attendance, unless prevented by illness or unavoidable causes, on the practical courses. These courses can only be taken during the third year, so that they cannot be made up at a later time.

In addition, the student must pass satisfactory written examinations on Materia Medica and Therapeutics, Pathological Histology, Practice of Medicine, Diseases of the Mind and Nervous System, Surgery, Obstetrics and Gynecology, Venereal Diseases, Diseases of the Eye, and Diseases of the Ear.

A student found deficient in only three of the seven departments of Materia Medica and Therapeutics, Pathological Histology, Practice of Medicine, Diseases of the Mind and Nervous System, Surgery, Obstetrics and Gynecology, and in only two of the three departments of Venereal Diseases, Diseases of the Eye, and Diseases of the Ear, can advance with his class provided that he makes up all but one of the five subjects on which he is conditioned before October 8 of the fourth year.

Standing at the End of the Fourth Year, and Final Examinations

The standing, in the respective departments, of a student at the end of the fourth year will be based upon the following tests, to be applied by, or under the direction of, the Professor in charge of the department, unless otherwise expressly specified:

Clinical Pathology.

(1) A record of practical work during the year.

(2) A practical examination in Clinical Microscopy.

(3) A written examination, of a length to be determined by the Professor of Pathology.

The Practice of Medicine.

(1) A record of practical work during the year in Clinical Medicine.

(2) A written examination, of a length to be determined by the Professor, and to be judged directly by him, upon the subjects covered by the instruction of the year.

The Diseases of the Mind and Nervous System.

(1) A record of practical work during the year in the diagnosis of nervous diseases.

(2) A written examination, of a length to be determined by the Professor, and to be judged directly by him, upon the subjects covered by the instruction of the year.

The Principles and Practice of Surgery.

(1) A record of practical work during the year in Clinical Surgery.

(2) A record of practical work during the year in Operative Surgery upon the cadaver.

(3) A written examination, of a length to be determined by the Professors, and to be judged directly by them, upon the subjects covered by the instruction of the year.

Obstetrics.

A record of practical work during the year in Clinical Obstetrics, including attendance upon confinements.

Diseases of Children.

(1) A record of practical work during the year.

(2) A written examination upon the subjects covered by the instruction of the year, to be conducted and judged by the Professor.

Diseases of the Skin.

(1) A record of practical work during the year.

(2) A written examination upon the subjects covered by the instruction of the year, to be conducted and judged by the Professor.

Diseases of the Throat and Nose.

(1) A record of practical work during the year.

(2) A written examination upon the subjects covered by the instruction of the year, to be conducted and judged by the Professor.

Orthopædic Surgery.

(1) A record of practical work during the year.

(2) A written examination upon the subjects covered by the instruction of the year, to be conducted and judged by the Professor.

No student will be recommended for the degree of M.D. unless he shall have passed satisfactory records of practical work during the fourth year in Clinical Pathology, Clinical Medicine, the Diagnosis of Nervous Diseases, Clinical Surgery, Operative Surgery upon the cadaver, Diseases of Children, Diseases of the Skin, Diseases of the Throat and Nose, Orthopædic Surgery, and Clinical Obstetrics, including attendance upon confinements. By a satisfactory record is meant a certificate of punctual attendance upon the practical courses, unless prevented by illness or unavoidable causes.

In addition, a candidate for graduation must pass a satisfactory practical examination in Clinical Pathology, and satisfactory written examinations in the following subjects of the fourth year, viz.: (1) Practice of Medicine, (2) Diseases of the Mind and Nervous System, (3) Principles and Practice of Surgery, (4) Clinical Pathology, (5) Diseases of Children, (6) Diseases of the Skin, (7) Diseases of the Throat and Nose, and (8) Orthopædic Surgery.

A student of the fourth year found deficient on examination in the spring in not more than three of the following eight departments, viz.: (1) Practice of Medicine, (2) Diseases of the Mind and Nervous System, (3) Principles and Practice of Surgery, (4) Clinical Pathology, (5) Diseases of Children, (6) Diseases of the Skin, (7) Diseases of the Throat and Nose, and (8) Orthopædic Surgery, *provided the three departments in which he has been found deficient do* *not include more than one of the following departments*, viz.: (1) Practice of Medicine, (2) Diseases of the Mind and Nervous System, (3) Principles and Practice of Surgery, must present himself for re-examination the following autumn in all the departments in which he failed in the preceding spring. If at such re-examination the student be found deficient in *any* department or departments, he will be obliged to repeat the work of the fourth year in such department or departments, paying a special tuition fee of $50 per department, and to present himself for re-examination the following spring in every subject in which he shall have failed. If at such second re-examination he shall fail again in *any* department, he will cease to be considered a candidate for a degree.

A student found deficient in the spring in more than one of the three following departments, viz.: (1) Practice of Medicine, (2) Diseases of the Mind and Nervous System, (3) Principles and Practice of Surgery, or more than three departments altogether, will be obliged to repeat the work of the fourth year in all of the departments in which he shall have been found deficient, and to pay a tuition fee of $50 per department.

Such a student will be required to present himself for re-examination the following spring in every subject in which he shall have failed. If at such re-examination he shall fail again in any department or departments, he must be re-examined therein the following autumn. If at such second re-examination he shall again fail in *any* department, he will cease to be considered a candidate for a degree.

REQUIREMENTS FOR GRADUATION

Every candidate before admission to the degree of M.D. will be required:

1. To present satisfactory evidence, as required by law, of good moral character, and of having attained the age of twenty-one years.

2. To present evidence of having complied with the requirements for admission.

3. To have attained to satisfactory standing in the required studies of the four years of the curriculum.

4. A candidate who shall have been admitted to advanced standing will be required to have spent not less than four academic years at the studies referred to in the clause next preceding; and to have complied successfully with the requirements for admission to advanced standing.

No two academic years which shall have begun during the same calendar year will be held to satisfy the requirements of the above clause.

THE DEGREE OF MASTER OF ARTS

The degree of Master of Arts may be conferred upon students holding college degrees, who shall have completed with distinction the entire course of the School of Medicine, provided that in each case the candidate presents a satisfactory dissertation, and that at least a part of the extra work required of him for the degree of Master of Arts be taken under the direction of the Faculty of Philosophy, Political Science, or Pure Science, to the extent of one minor course, for not less than one year.

Students in the School of Medicine who are candidates for the degree of Master of Arts, in accordance with the preceding paragraph, are subject to the regulations of the Faculty of Philosophy, Political Science, or Pure Science, under which the extra work is taken, and which finally recommends the candidates for the degree. Such students should apply to the Dean of the same faculty for a registration-book.

ALONZO CLARK SCHOLARSHIP

See page 46.

FELLOWSHIPS

For the University Fellowships, see page 33.
For the Alumni Association Fellowships, see page 46.
Proudfit Fellowship, see page 46.

PRIZES

For the Harsen Prizes for clinical reports, see page 47.
For the Harsen Prizes for proficiency at examination, see page 47.
For the Alumni Association Prize, see page 48.
For the Cartwright Prize, see page 48.
For the Stevens Triennial Prize, see page 48.
For the Joseph Mather Smith Prize, see page 49.

EQUIPMENT AND COLLECTIONS

Detailed information as to the laboratories, collections, and other facilities for study will be found in the statements of the various departments of instruction, pages 65 to 206.

REQUIREMENTS FOR LICENSE TO PRACTISE MEDICINE IN NEW YORK STATE

For information see Announcement of School of Medicine.

REGISTER OF STUDENTS

FOURTH YEAR CLASS

Adelson, Jonas	(Mhtn) New York City
Adler, Hermann Morris, A.B., *Harvard*	(Mhtn) New York City
Alexander, Alexander John Aitcheson, A.B., *Princeton*	Spring Station, Ky.
Alter, Julius Elmer	(Mhtn) New York City
Bainton, Joseph Hector, A.B., *St. Francis Xavier*	(Mhtn) New York City
Baird, Addison Waddell	(Mhtn) New York City
Barton, Francis William, B.S., *Notre Dame*	(Mhtn) New York City
Bauman, Louis	(Mhtn) New York City
Bayles, Howard	New Rochelle, N. Y.
Benedict, Alfred Chapman, B.S., *N. Y. University*	(Mhtn) New York City
Beveridge, James Wallace	New Rochelle, N. Y.
Bill, Philip Worcester, Ph.B., *Yale*	Bridgeport, Conn.
Bliss, Robert Franklin	(Bklyn) New York City
Blue, John Howard, B.S., *Univ. of Alabama*	Montgomery, Ala.
Bohm, Oscar Henry	Yonkers, N. Y.
Bolduan, Charles Frederick, Ph.G., *N. Y. College of Pharmacy*,	(Bklyn) New York City
Bookman, Arthur, A.B., *Columbia*	(Mhtn) New York City
Britenstool, Harry	Rochester, N. Y.
Buerger, Leo, A.B., *N. Y. City College*	(Mhtn) New York City
Buffington, Ralph Edward	Short Hills, N. J.
Bulkley, Lucius Constant, A.B., *Columbia*	(Mhtn) New York City
Cairns, Douglas Walker	(Mhtn) New York City
Charlton, Herbert Richard	Mt. Vernon, N. Y.
Cimiotti, Walter Frank	(Mhtn) New York City
Cohn, Hermann	Newark, N. J.
Condit, Joseph Dayton, A.B., *Wabash*	Terre Haute, Ind.
Cooke, Albert Samuel	Whitehall, N. Y.
Cram, George Eversleigh, Ph.B., *Yale*	Norwalk, Conn.
Creeden, Edward Lawrence, A.B., *St. Francis Xavier*	(Mhtn) New York City
Cunningham, Joseph Atwood, A.B., *N. Y. City College*	Islip, N. Y.
Curran, John Dickinson, B.S., *Cornell*	Binghamton, N. Y.
Curran, Philip John	Portland, Conn.
Darrach, William, A.B., *Yale*	(Mhtn) New York City
Day, Arthur Winfield, A.B., *Dartmouth*	(Bklyn) New York City
de Castro, Raimundo, Jr., A.B., *Univ. of Havana*	Havana, Cuba

De Long, Faust Stansfield	Richfield Springs, N. Y.
Deming, Dudley Brainard, Ph.B., *Yale*	Litchfield, Conn.
Donohue, Francis Bernard, A.B., A.M., *Seton Hall*	Paterson, N. J.
Dunseith, James Gracey	(Mhtn) New York City
Engel, Walter Frederick	(Bklyn) New York City
Flood, George John Balleray	Waterville, Me.
Foehrenbach, Herman P., A.B., *N. Y. City College*	(Mhtn) New York City
Frazer, Harvey Thompson, B.S., *Princeton*	Newark, N. J.
Fulda, Carl	(Bklyn) New York City
Gabriel, Charles John	Newark, N. J.
Gale, Sparrell Simmons, A.B., *Roanoke College*	Roanoke, Va.
Geyer, Harold Carl, A.B., *Columbia*	(Mhtn) New York City
Gibbs, James Philip, A.M., *Southwestern University*	Huntsville, Tex.
Gillette, Curtenius, A.B., *Yale*	(Mhtn) New York City
Goldman, Charles	(Mhtn) New York City
Goodridge, Frederic Grosvenor, A.B., *Harvard*	(Mhtn) New York City
Greil, Gaston, B.S., *Alabama Polytechnic Institute*	Montgomery, Ala.
Gretsch, Bernard Joseph, LL.B., *N. Y. University*	(Mhtn) New York City
Grossmann, Louis	(Mhtn) New York City
Gunter, Clarence	Montgomery, Ala.
Hart, George Washington	(Bklyn) New York City
Hartman, William Lewis, Ph.B., *N. Y. University*	(Mhtn) New York City
Haussling, Francis Reynolds, B.S., *Princeton*	Newark, N. J.
Haven, Samuel Carruth, A.B., *Amherst*	Morristown, N. J.
Hess, Alfred Fabian, A.B., *Harvard*	(Mhtn) New York City
Hodgson, Frederick Grady	Athens, Ga.
Hume, Eugene Francis	(Mhtn) New York City
Hyde, Oliver Thompson, B.S., *Amherst*	Ellington, Conn.
Jackson, Frank Hussy, Jr.	Providence, R. I.
Jacobs, Eshoo, B.S., *Urmi College*	Urmi, Persia
Jellinghaus, Charles Frederic, A.B., *N. Y. City College*	(Mhtn) New York City
Jones, Willis Bryant	Newnan, Ga.
Judd, James Robert, A.B., *Yale*	Honolulu, Hawaii
Kramer, David	(Mhtn) New York City
Levy, David Heine	(Mhtn) New York City
Levy, Isaac Harris	(Mhtn) New York City
Lewis, James Hoyt, A.B., *Yale*	(Mhtn) New York City
Leyenberger, Samuel Boughton Whitman	Newark, N. J.
Loizeaux, Edward Sanderson	Plainfield, N. J.
McCarthy, Joseph Francis, Phar.D., *N. Y. College of Pharmacy*,	Yonkers, N. Y.
McCully, Rob Roy, Ph.G., *N. Y. College of Pharmacy*	(Mhtn) New York City
McEntee, Edward James	(Bklyn) New York City
McFarland, William Landram	(Mhtn) New York City
McGill, Elisha Leavenworth	Petersburg, Va.
McKelvy, James Percy	Braddock, Pa.
McKenzie, Edward Townsend, A.B., *N. Y. University*	Rahway, N. J.

Meagher, John Francis Wallace.....................(Bklyn) New York City
Merchant, Marcius Harold, B.P., *Brown University*..........Warren, R. I.
Mitchell, Robert Jack.............................(Mhtn) New York City
Moynan, William Thomas.........................(Bklyn) New York City
Mulcahy, Thomas Aloysius...............................Hartford, Conn.
Newman, Serenus Lazarus.........................(Mhtn) New York City
Oppenheimer, Bernard Sutro, A.B., *Harvard*........(Mhtn) New York City
Pelgram, George Oscar............................(Mhtn) New York City
Pier, Victor Seymour, Ph.G., *N. Y. College of Pharmacy*..Poughkeepsie, N.Y.
Pierce, Edwin Francis, A.B., *Bates*.................(Mhtn) New York City
Pinneo, Frank Wilcox...................................Newark, N. J.
Post, Wilfred McIlvaine, B.A., *Princeton*....................Beirût, Syria
Prentice, Alfred Carlyle, A.B., A.M., *Alfred University*, (Mhtn) New York City
Preston, Perry Brower....................................Newark, N. J.
Reinhardt, Emanuel, A.B., *N. Y. City College*........(Mhtn) New York City
Reynolds, Gibson, A.B., *Univ. of Alabama*...............Montgomery, Ala.
Reynolds, Michael Thomas........................(Mhtn) New York City
Riggio, Louis Dominick...........................(Mhtn) New York City
Rogers, Andrews, Ph.B., *Ohio State University*...............Columbus, O.
Rogers, John Jay, B.S., *Univ. of Wisconsin*............Minneapolis, Minn.
Russell, James Isaac, B.A., *Univ. of Va*..................Winchester, Va.
Ryan, Philip Francis Xavier, A.B., A.M., *St. Francis Xavier*, (Mhtn) New York City
Sandy, William Charles, Jr., B.A., *Columbia*................Newark, N. J.
Schaeffer, Benjamin Leonard.......................(Mhtn) New York City
Schenck, Garrett Kouwenhoven Williamson, B.S., *Md. Agricultural College*, (Bklyn) New York City
Schildecker, Charles Bushfield..............................Pittsburg, Pa.
Schneider, Francis Alphonse.......................(Mhtn) New York City
Schulhofer, Samuel................................(Mhtn) New York City
Schultz, Alfred Paul, B.A., *N. Y. City College*........(Mhtn) New York City
Schwartz, Henry William..........................(Mhtn) New York City
Schweitzer, Henry George.........................(Mhtn) New York City
Selleck, Ernest Edward, Ph.B., *Yale*......................Norwalk, Conn.
Sharp, James Clayton.............................(Bklyn) New York City
Shearer, Leander Howard, A.B., *Princeton*..........(Mhtn) New York City
Shearman, Robert Willis, B.A., *Columbia*...........(Mhtn) New York City
Slocum, Harry Britton..............................Long Branch, N. J.
Smith, Charles Hendee, B.S., *Cornell*......................Hartland, Wis.
Spiegel, Leo.......................................(Mhtn) New York City
Spingarn, Alexander, B.S., *N. Y. City College*........(Bklyn) New York City
Stark, Morris, B.S., *N. Y. City College*..............(Mhtn) New York City
Stark, Nathan Neuville, B.S., *N. Y. City College*......(Mhtn) New York City
Starr, Robert Sythoff, B.A., M.A., *Trinity*................Hartford, Conn.
Steedly, Benjamin Broadus...................................Athens, Ga.
Stetten, De Witt...................................(Mhtn) New York City

Stryker, Edgar de Mott, B.S., *Rutgers*	Raritan, N. J.
Teahan, William John	Holyoke, Mass.
Thompson, Edward Cameron, A.B., *Princeton*	Middletown, N. Y.
Todd, George Wilson	(Mhtn) New York City
Vandegrift, George Wonson, A.B., *N. Y. City College*	(Bklyn) New York City
Van Ingen, Philip, A.B., *Yale*	(Mhtn) New York City
von Deesten, Henry Theodor	Hoboken, N. J.
Vreeland, William Norbury	Jersey City, N. J.
Walsh, James Joseph Sebastian, B.S., *Manhattan*	(Br) New York City
Wechsler, Abraham Hirsch	(Bklyn) New York City
Weiss, Frank Henry, Ph.G., *Northwestern*	Findlay, O.
Westcott, Clinton Stevens	Providence, R. I.
Weygandt, Fred George	(Bklyn) New York City
Whitbeck, Sherwood Volkert	Hudson, N. Y.
Whitman, William Rush, A.B., *Roanoke College*	Pulaski City, Va.
Williams, Henry Tilton	Seneca Falls, N. Y.
Williams, Percy Herbert, A.B., *Princeton*	(Mhtn) New York City
Williams, Thomas Marion, A.B., *Stanford Univ*	Duo, W. Va.
Witter, Orin Russell	Chaplin, Conn.
Woglom, William Henry	(Bklyn) New York City
Yocum, Joseph Grant	Middletown, N. Y.
Ziegel, Herman Fred Lange, B.S., *N. Y. City College*	(Mhtn) New York City
Fourth Year Class	147

THIRD YEAR CLASS

Adams, John King	East Orange, N. J.
Asch, Joseph Jefferson	(Mhtn) New York City
Baff, Max	Newark, N. J.
Baker, Charles Frederick	Newark, N. J.
Barrett, Herbert Henry	(Mhtn) New York City
Beach, Ralph Munson	(Bklyn) New York City
Bell, Harold Walsworth	(Mhtn) New York City
Betowski, Leon Stanislaus	Waverly, N. Y.
Bissell, Philip, A.B., *Columbia*	(Mhtn) New York City
Bonnell, Clarence Hornbeck, A.B., *Rutgers*	(Mhtn) New York City
Booth, Franklin Hendrickson, A.B., *Yale*	(Q) New York City
Bracker, Max Henry	(Mhtn) New York City
Braun, Alfred, A.B., *N. Y. City College*	(Mhtn) New York City
Bridge, George Alexander, A.B., *Yale*	Hazardville, Conn.
Brown, Sherman	Bloomfield, Ont.
Bryant, Robert Rindell	Lake Hopatcong, N. J.
Bull, W. Tillinghast, Ph.B., *Yale*	Newport, R. I.
Busck, Gunni Julius	(Mhtn) New York City
Butts, Arthur Clarkson, Jr	(Mhtn) New York City
Carpender, John Nielson, Jr., B.S., *Rutgers*	New Brunswick, N. J.
Chancellor, Charles Hurst	(Mhtn) New York City
Chibas, Lino Sisto Felicisimo	Guantanamo, Cuba

Cohn, Isadore, B.S., *N. Y. City College*..............(Mhtn) New York City
Conklin, Daniel Beckel.......................................Dayton, O.
Corrigan, Henry John Cole, A.B., *Brown ;* A.M., *St. Francis Xavier*,
Providence, R. I.
Cortright, Charles Bartles..................................Newark, N. J.
Coultas, Aldo Bliss..Morristown, N. J.
Covert, Jay Byington, A.B., *Hobart*.........................Geneva, N. Y.
Dalton, William Aloysius, B.S., *N. Y. City College ;*
M.S., Ph.D., *N. Y. University*, (Br) New York City
Danforth, Edward.................................(Mhtn) New York City
Davis, James William...........................Livingston Manor, N. Y.
Deutsch, Sigmund.................................(Mhtn) New York City
Dillon, Charles Joseph, A.B., *Manhattan*............(Mhtn) New York City
Dollard, Henry Louis.................................Oyster Bay, N. Y.
Doolittle, Willard Foster................................Geneseo, N. Y.
Doon, James Henry.....................................Worcester, Mass.
Engelke, Charles.......................................Waterbury, Conn.
Erdman, Seward, A.B., *Princeton*.........................Morristown, N. J.
Estill, Robert Julian, A.B., *Kentucky University*............Lexington, Ky.
Evans, John Harry, B. Agr., *Storr's Agricultural College*,
Thompson, Conn.
Fewsmith, Joseph Livingston, A.B., *Yale*.................Newark, N. J.
Fletcher, Norton De Los Lull, A.B., *Columbia*........(Mhtn) New York City
Fowler, Samuel Robertson........................(Mhtn) New York City
Frink, Claude Augustine, A.B., *Williams*.............North Adams, Mass.
Garrigan, Gerald Paul......................................Newark, N. J.
Giffen, Stanley D.................................(Mhtn) New York City
Gillespie, David Halliday Moffat, A.B., *Yale*.........(Mhtn) New York City
Goldberg, Jacob Montgomery.......................(Mhtn) New York City
Goodfriend, Nathan...............................(Mhtn) New York City
Grout, Gerald Harrison...................................Saginaw, Mich.
Gunther, Emil Albert......................................Newark, N. J.
Haber, William John, Ph.G., *Univ. of California*........San Francisco, Cal.
Haberstroh, Arthur...............................(Mhtn) New York City
Hahn, George Henry......................................Newark, N. J.
Hall, Charles Henry..............................(Bklyn) New York City
Hamilton, Allen, A.B., *Williams*.......................Fort Wayne, Ind.
Hammer, Julius...................................(Mhtn) New York City
Harrold, Charles Cotton, B.S., *Univ. of Georgia*.............Americus, Ga.
Hart, George Graham...................................Larchmont, N. Y.
Hartshorn, Winfred Morgan, A.B., *Yale*.............(Mhtn) New York City
Hawkins, Norman Louis..Islip, N. Y.
Herbert, Edward......................................Fall River, Mass.
Herzig, Arthur J..................................(Mhtn) New York City
Heublein, Arthur Carl....................................Hartford, Conn.
Hirsch, Seth Isaac...............................(Mhtn) New York City
Hyde, James Samuel...................................Fall River, Mass.

Jacob, William Henry............Paterson, N. J.
Jennings, Frank Dormer............(Mhtn) New York City
Jones, Samuel Fosdick............Cincinnati, O.
Keator, Harry Mayham, A.B., *Yale*............Roxbury, N. Y.
Keenan, Albert Joseph, A.B., *Manhattan*............(Bklyn) New York City
Kinney, Virgil Charles............Friendship, N. Y.
Knapp, Clinton Beecham, A.B., *Ohio Wesleyan*............Wooster, O.
Knight, Robert............Seneca Falls, N. Y.
Krauskopf, Henry............(Mhtn) New York City
Krehbiel, Otto Frederick, A.B., *N. Y. City College*....(Mhtn) New York City
Kuhr, Ernestus Otto, A.B., *St. John's*............(Bklyn) New York City
Lawson, James Herbert............(Mhtn) New York City
Lee, Lawrence............Savannah, Ga.
Lifshutz, Nathan............(Mhtn) New York City
Loew, Harry Kalman............Brownsville, Tex.
Loughran, Elbert Du Bois............Kingston, N. Y.
Lowrey, James Henry............Newark, N. J.
McCabe, John............(Mhtn) New York City
McChesney, Herman Franklin, B.S., *Carleton College*......Northfield, Minn.
McFarland, George Henry, Jr., B.S., *Princeton*............Cambridge, N. Y.
McGraw, Theodore Alexander, Jr., A.B., *Yale*............Detroit, Mich.
McSheehy, Theobald Coleman, A.B., *Holy Cross*; A.M., *St. Francis Xavier*, Whitinsville, Mass.
MacGuire, Daniel Philip............(R) New York City
Matthews, Frank Cameron, A.B., *Leland Stanford, Jr.*, (Mhtn) New York City
Mead, Lewis Durant, B.S., *Univ. of California*............San Francisco, Cal.
Meeker, Harold Denman, A.B., *Wesleyan Univ*............Paterson, N. J.
Meyer, William Henry............(Mhtn) New York City
Milliken, Samuel Ramsey, B.S., *Southwestern Univ*............Lewisville, Tex.
Milliken, Seth Minot, Jr., A.B., *Yale*............(Mhtn) New York City
Monroe, Parley William, B.S., *Franklin*............Yonkers, N. Y.
Mosler, Fred Henry............(Mhtn) New York City
Murphy, Joseph Denis............Worcester, Mass.
O'Neill, Hugh Pius, B.A., *St. Joseph's College*, N. B.....St. Andrews, N. B.
O'Rourke, Michael Francis, A.B., *St. Francis Xavier*..(Mhtn) New York City
Page, Albert William............Chappaqua, N. Y.
Pappenheimer, Alvin Max, A.B., *Harvard*............(Mhtn) New York City
Pentlarge, Victor Howard............Wyoming, O.
Pfletschinger, Frederic, B.S., *N. Y. City College*......(Mhtn) New York City
Phillips, Frederick George............Providence, R. I.
Pollak, Alfred William............Waterbury, Conn.
Province, Oran Arnold, A.B., *Indiana Univ*............Franklin, Ind.
Pyle, Francis Winthrop, A.B., *Yale*............Bridgeport, Conn.
Quell, John Adam, Jr............(Bklyn) New York City
Radin, Herman Theodore, A.B., *N. Y. City College*...(Mhtn) New York City
Rhodes, Goodrich Barbour, B.A., *Yale*............Cincinnati, O.

Rice, James Francis, B.A., M.A., *N. Y. Univ*	Gnadenhütten, O.
Riggs, Austen Fox, A.B., *Harvard*	(Mhtn) New York City
Rose, Robert Hugh, A.B., *De Pauw Univ*	Carthage, Mo.
Rosenberg, Daniel Davis	(Bklyn) New York City
Rosenbluth, Benjamin	(Mhtn) New York City
Rosenbluth, Michael	(Mhtn) New York City
Saphir, Joseph Frederick	(Mhtn) New York City
Satenstein, David Lawrence	(Mhtn) New York City
Scheinberg, Louis	(Mhtn) New York City
Schulte, Hermann von Wechlinger, A.B., *Trinity*	(Mhtn) New York City
Seckel, Walter	(Mhtn) New York City
Seff, Isadore	Northumberland, Pa.
Shipman, Clark Smythe	(Mhtn) New York City
Siglar, Henry Burr, B.A., *Yale*	Newburgh, N. Y.
Silk, Morris, A.B., *N. Y. City College*	(Mhtn) New York City
Sloan, Andrew	Utica, N. Y.
Smith, Archibald Delap, A.B., *Yale*	(Bklyn) New York City
Smith, Davison Heermance, A.B., *Columbia*	(Mhtn) New York City
Spitzka, Edward Anthony	(Mhtn) New York City
Stoll, Henry Farnum	Port Jervis, N. Y.
Strong, S. Meredith	(Mhtn) New York City
Sullivan, John Jerome, A.B., *Univ of Nevada*	Virginia City, Nev.
Sutphen, Edward Blair	Newark, N. J.
Sylvia, Charles Anthony	New Bedford, Mass.
Titus, Henry Woodruff, A.B., *Williams*	Auburn, N. Y.
Van Alstyne, William Becker	Plainfield, N. J.
Van Beuren, Frederick Theodore, Jr., A.B., *Yale*	(Mhtn) New York City
Van Wart, Frank Brush	(Bklyn) New York City
Warren, Earl Philip	Orwell, Vt.
Waterhouse, Henry Edwin	Pascoag, R. I.
Webb, Frank Reed	(Mhtn) New York City
Webster, Charles Edward, Jr., A.B., *Lehigh*	South Bethlehem, Pa.
Wells, William Henry, C.E., *Princeton;* Ph.G., *N. Y. College of Pharmacy,*	Jersey City, N. J.
Westcott, William Beverly	Montgomery, Ala.
Wheeler, Alfred Winslow	Oakland, Me.
White, George Douglass	Jersey City, N. J.
Whittemore, Edward Reed, A.B., *Yale*	New Haven, Conn.
Wilcox, Herbert Budington, A.B., *Yale*	Summit, N. J.
Wollheim, Jacob Lewis	(Mhtn) New York City
Third Year Class	150

SECOND YEAR CLASS

Abel, Samuel	(Mhtn) New York City
Adams, Paul Allen, A.B., *Leland Stanford, Jr*	Helena, Mont.
Allen, David Gordon	Savannah, Ga.
Ames, Elmer Hempsted	Jersey City, N. J.

Andrews, Warren Beecher	Plantsville, Conn.
Assenheimer, Edward Minturn	(Mhtn) New York City
Baker, Fred Reuel, A.B., *Williams*	Bloomington, Ill.
Bama, Lewis	(Mhtn) New York City
Barnes, Harry	Ashton, R. I.
Beattie, William Henry, A.B., *Williams*	Cohoes, N. Y.
Bentz, George Henry	(Mhtn) New York City
Block, Mark	(Mhtn) New York City
Bloom, David Merwin	Newark, N. J.
Blumgart, Leonard	Newark, N. J.
Bodenheimer, Milton, B.S., *N. Y. City College*	(Mhtn) New York City
Borden, John Harvey, A.B., *Yale*	(Mhtn) New York City
Brennglass, Joachim, Ph. G., *N. Y. College of Pharmacy*	(Mhtn) New York City
Brophy, William Joseph, B.S., *St. Francis College, Brooklyn*	Saratoga, N. Y.
Brown, Alfred Jerome, A.B., *Yale*	(Mhtn) New York City
Brown, Frank Edwin	(Bklyn) New York City
Bugbee, Harry Greenwood	Springfield, Mass.
Bullowa, Jesse Godfrey Moritz, A.B., *N. Y. City College*,	(Mhtn) New York City
Burdick, Carl Goodwin	Springfield, Mass.
Burford, Mortimer Gilbert	(Bklyn) New York City
Cannon, James Rutherford	Irvington-on-Hudson, N. Y.
Cantle, Herbert Cuthbert	(Mhtn) New York City
Capito, Gustav Benz, A.B., *Washington and Lee*	Charleston, W. Va.
Carter, Norman McLeod, A.B., *Princeton*	Huntington, N. Y.
Chace, Arthur Freeborn, B.S., *Earlham*; A.B., *Harvard*.	South Swansea, Mass.
Clay, Thomas Arthur	Paterson, N. J.
Cocks, Gerhard Hutchison, A.B., *Yale*	(Bklyn) New York City
Cohen, Frank	(Mhtn) New York City
Colton, Edwin Arthur, A.B., *Amherst*	Montpelier, Vt.
Cook, Albert Edward	(Bklyn) New York City
Cornman, Leighton Randolph	(Mhtn) New York City
Cosgrove, John Joseph	Worcester, Mass.
Cowles, Henry Clay, Jr., A.B., *Univ. of North Carolina*	Statesville, N. C.
David, Frank Haines	(Mhtn) New York City
Davis, Arthur Wendell, A.B., *Yale*	Hartford, Conn.
De Baun, Ralph	Valley Cottage, N. Y.
Dias, Joseph Lawrence	New Bedford, Mass.
Doran, Charles Edmund, A.B., *Univ. of Nebraska*	Sidney, Neb.
DuBois, Francis Elbert, A.B., *Princeton*	(Mhtn) New York City
Duncan, Owsley Bennett	Paterson, N. J.
Durham, Roger, A.B., *Columbia*	(Mhtn) New York City
Elias, Lewis Weimar, A.B., *Trinity Coll., North Carolina*	Franklin, N. C.
Elmore, Wilbur Bruce, A.B., *Columbia*	Oberlin, O.
Epler, Don Agard	Saratoga Springs, N. Y.
Erdwurm, Frank, B.S., *N. Y. University*	Jersey City, N. J.
Erskine, James Pendleton, A.B., *Wesleyan*	(Mhtn) New York City

Evans, Archibald Parker	(Bklyn) New York City
Fairchild, Charles Wager	Tarrytown, N. Y.
Fassett, Bryant Sloat	Elmira, N. Y.
Faucett, Samuel Thompson	Stamford, Conn.
Finch, Lew Henri	Broadalbin, N. Y.
Finn, Frederic Aloysius, A.B., *St. Peter's College*	Jersey City, N. J.
Foshay, John Russell	Peekskill, N. Y.
Franca, Mario, A.B., *Univ. of Havana*	Havana, Cuba
Franklin, Louis	Jersey City, N. J.
Fried, Gustav Adolph, A.B., *Harvard*	(Mhtn) New York City
Friedman, Harry Jacob	(Mhtn) New York City
Gage, George Henry	Bellona, N. Y.
Galbraith, Arno William, B.S., *Grove City College, Pa*	Natrona, Pa.
Garretson, William Van Pelt	Jersey City, N. J.
Garside, Charles Zeh	Newark, N. J.
Garvin, William Creighton	(Mhtn) New York City
Goldfrank, Fred, A.B., *Harvard*	(Mhtn) New York City
Gould, George Clifford	Mt. Vernon, N. Y.
Greenblatt, Max	(Mhtn) New York City
Gregory, Ward Slosson, Ph.B., *Yale*	Norwalk, Conn.
Greif, Joseph	(Mhtn) New York City
Gross, Herman	(Mhtn) New York City
Gulliver, Francis Daniel	Portland, Me.
Hamilton, Samuel Warren, A.B., *Univ. of Vermont*	Rutland, Vt.
Harran, George Patrick	(Mhtn) New York City
Hasking, Arthur Perry	Jersey City, N. J.
Hawks, Everett Merl, A.B., *Columbia*	Tarrytown, N. Y.
Haynes, Royal Storrs, Ph.B., *Cornell*	(Bklyn) New York City
Hazay, Max	(Mhtn) New York City
Helgeson, Karl Alfred	Keokuk, Ia.
Henderson, Alfred Collard, B.S., *Amherst*	(Bklyn) New York City
Hennesey, James Francis	Garfield, N. J.
Herlitzka, Louis	(Mhtn) New York City
Higgins, Spencer Littlefield, B.S., *Rutgers*	Roselle, N. J.
Holcomb, Henry Van Velsor, Ph.G., *N. Y. Coll. of Phar.*	Mamaroneck, N. Y.
Holdridge, Walter Henry	Catskill, N. Y.
Horowitz, Israel	(Mhtn) New York City
Huff, Earle Phineas	Ada, O.
Humphreys, Frederick Brown, Ph.B., *Yale*	(Mhtn) New York City
Ingraham, Ira Frank, A.B., *Colby*	Houlton, Me.
Irving, Pierre Frederic, A.B., *Columbia*	Glencoe, Md.
Jaches, Leopold, LL.B., *New York Law School*	(Mhtn) New York City
Kanner, Samuel Henry	(Mhtn) New York City
Kellogg, Henry Kirke White, B.S., *Amherst*	(Mhtn) New York City
Kent, James Manning, A.B., *Brown*	Putnam, Conn.
Kenyon, Harold Denison	Westerly, R. I.
Kernan, John Devereux, Jr., A.B., *Harvard*	(Mhtn) New York City

Kessel, Leo	(Mhtn) New York City
Kingsbury, Isaac William, A.B., *Harvard*	West Newton, Mass.
Knipe, Joseph Bolton	(Mhtn) New York City
Knipe, William Hugh Wellington, A.B., *N. Y. City College,*	(Mhtn) New York City
Kroener, George Archer	Long Branch, N. J.
Lang, Otto, Jr., A.B., *Detroit*	Detroit, Mich.
Le Comte, John Radway	(Mhtn) New York City
Leiter, Horace Louis, A.B., *Harvard*	Syracuse, N. Y.
Lennox, Paul Martin	Colorado Springs, Colo.
Lent, Malcolm Foster	Peekskill, N. Y.
Leonard, Arthur James	Saratoga Springs, N. Y.
Lesem, William Wolfe, A.B., *Columbia*	East Orange, N. J.
Levy, Joseph	(Bklyn) New York City
Littell, Elton Gardiner, A.B., *Trinity*	(Mhtn) New York City
Lorber, Herman	(Mhtn) New York City
Lord, William Ogden	New Bedford, Mass.
Luper, Daniel Bret	(Mhtn) New York City
Lyne, Frank Farra, B.L., *Kentucky Univ*	Lexington, Ky.
McCabe, Thomas Sheridan	Newark, N. J.
McCastline, William Henry	(Mhtn) New York City
McCollom, William Ezra	(Bklyn) New York City
Macbean, William Alistair Bruce	Tarrytown, N. Y.
Markham, Convas Lane	Haverstraw, N. Y.
Marks, Samuel Blackburn, B.S., *Kentucky State College*	Versailles, Ky.
Martin, Thomas	Branford, Conn.
Mosenthal, Herman Otto, B.A., *Columbia*	(Mhtn) New York City
Murphy, George Heenan	(R) New York City
Nash, William Gibbs, A.B., *Harvard*	(Mhtn) New York City
Nelson, Nathan William	(Bklyn) New York City
Neumann, William	(Mhtn) New York City
Newman, Frederick James	(Mhtn) New York City
Nicoll, Alexander	(Mhtn) New York City
Nicoll, Leonard Francis	(Mhtn) New York City
Ogan, Morris Lee	(Mhtn) New York City
O'Leary, William Joseph	Canandaigua, N. Y.
Osgood, Charles	Norwich, Conn.
Owens, George Conrad	Adams Center, N. Y.
Palmer, Lynn Ransom	Sidney, N. Y.
Parkinson, James McDavid	Norwich, Conn.
Paterson, Douglas Campbell	(Mhtn) New York City
Peabody, James Royden	Columbus, Ga.
Pease, Theodore Normand	Boston, Mass.
Pierpont, David Cowee	National Home, Wis.
Pierson, Henry Morton	Roselle, N. J.
Posner, Edward Rudolph	Des Moines, Ia.
Potter, Philip Sheridan, B.A., *Yale*	North Adams, Mass.

Pou, Robert Edward	Columbus, Ga.
Puente, Alfonso Manuel, A.B. *Univ. of Havana*	Santiago de Cuba, Cuba
Recknagel, William Edward	Brunswick, Ga.
Reid, Robert Lincoln	(Mhtn) New York City
Ringland, Robert Finlay	Montclair, N. J.
Robinson, Emanuel Marx	(Mhtn) New York City
Rokeach, Aaron	(Mhtn) New York City
Rosen, Isadore	(Mhtn) New York City
Rosenbaum, Morris	(Mhtn) New York City
Rowland, Harry Haynes, A.B., *Williams*	Geneseo, N. Y.
Royall, Edson Davidge	Lebanon, Conn.
Runyon, Laurance Phillips, B.S., *Rutgers*	New Brunswick, N. J.
Ryan, Joseph Patrick	Danbury, Conn.
Saladino, Sebastian	(R) New York City
Sargent, Francis Augustus, Ph.B., *Wesleyan*	Bangor, Me.
Schechter, Nathan	(Mhtn) New York City
Scheina, Otto	(Mhtn) New York City
Schnepel, George Augustus	(Mhtn) New York City
Shannahan, Richard Joseph, A.B., *Holy Cross*	Worcester, Mass.
Shultz, Martin Elliot	Punta Rassa, Fla.
Simmons, Fred Albert, Ph.B., *Brown*	Adams, Mass.
Sinnott, Joseph John	Mt. Vernon, N. Y.
Smith, Leroy James	Turner, N. Y.
Spanier, Louis	Norwich, Conn.
Stetson, Dudley Donnelly	Milwaukee, Wis.
Stork, Louis, Jr	(Bklyn) New York City
Strodl, George Thomas, A.B., *N. Y. City College*	West Hoboken, N. J.
Tallmadge, William Henry, Jr	Stamford, Conn.
Tarditi, Antonio	(Mhtn) New York City
Taves, Archibald William	(Mhtn) New York City
Tilton, Arthur Russell	Hammond, N. Y.
Trainor, James Henry	New Brunswick, N. J.
Tunick, Isidor Solomon	(Mhtn) New York City
Twichell, David Cushman, A.B., *Yale*	Hartford, Conn.
Van Dyke, Benjamin Smith	Stockton, N. J.
Vary, Harvey Judson, A.B., *Williams*	Skaneateles, N. Y.
Von Huffman, Otto	Dayton, O.
Weissman, Max, A.B., *N. Y. City College*	(Mhtn) New York City
Whitbeck, Brainerd Hunt, A.B., *Harvard*	Rochester, N. Y.
Whittaker, Neil McLeod	(Bklyn) New York City
Wickham, Joseph Nelson	(Q) New York City
Widmer, Henry Rudolph	(R) New York City
Williams, Frederic Darbey	Valley Falls, R. I.
Williams, John Nelson, A.B., *Columbia*	Bedford, N. Y.
Wolff, Morris	Muncie, Ind.
Young, Joseph Witham, B.S., *Cornell*	(Mhtn) New York City
Zinsser, Hans William, A.B., *Columbia*	(Mhtn) New York City
Second Year Class	190

FIRST YEAR CLASS

Adams, Robert Allison, A.B., *N. Y. City College*	(Mhtn) New York City
Alexander, George Mortimore	(Mhtn) New York City
Allen, Albert Henry, Ph.B., *Emory*	Columbus, Ga.
Allen, Benjamin Gill, A.B., *Trinity*	Henderson, N.C.
Allers, Charles Lawrence	(R) New York City
Armington, Herbert Hamlin, A.B., *Brown*	Providence, R. I.
Aronson, Louis Simon	(Mhtn) New York City
Avery, Oswald Theodore, A.B., *Colgate*	(Mhtn) New York City
Ball, Charles Edward Augustine	South Orange, N. J.
Banister, Robert Louis	Newark, N. J.
Barnert, Cyril	Paterson, N. J.
Bartrum, William C	Newburgh, N. Y.
Bell, Allister MacDonald, A.B., *Yale*	Orange, N. J.
Biegeleisen, Joseph Zachary	(Mhtn) New York City
Black, Michael Francis, A.B., *Williams*	Williamstown, Mass.
Blancard, William	(Mhtn) New York City
Blauner, Samuel, B.S., *N. Y. City College*	(Mhtn) New York City
Bless, Robert Allen	Mountain View, N. J.
Bock, Rudolph	(Mhtn) New York City
Bondy, Julius	Hartford, Conn.
Bopp, Walter Fredrich, A.B., *N. Y. City College*	(Mhtn) New York City
Bourke, John Francis	(Mhtn) New York City
Bowman, James Floyd, A.B., *Columbia*	Montclair, N. J.
Brand, Adolph	(Mhtn) New York City
Branower, William	(Mhtn) New York City
Breed, Robert Huntington	Cornwall, N. Y.
Browne, Duncan Hodge	(Mhtn) New York City
Brun, Edward Anthony, B.S., *Seton Hall College*	Caracas, Venezuela
Brundage, Philip Edwin, A.B., *Princeton*	Stroudsburg, Pa.
Byrd, Francis Otway, A.B., *Harvard*	(Mhtn) New York City
Canto, Ysidro Herrera, B.S., *Boston*	Cansahcab, Yucatan
Carter, Robert Williams, A.B., *Princeton*	Montclair, N. J.
Cherry, Thomas Harris	(Mhtn) New York City
Chessman, Frank Newhall	Helena, Mont.
Clark, William Irving, Jr., A.B., *Columbia*	(Mhtn) New York City
Cleghorn, Charles Dalton, B.S., *Princeton*	Manchester, Vt.
Coerr, Frederic Dan Huntington, A.B., *Columbia*	(Mhtn) New York City
Cohn, Alfred Einstein, A.B., *Columbia*	(Mhtn) New York City
Commiskey, Leo John Joseph	(Bklyn) New York City
Cook, Edward, A.B., *Harvard*	(Mhtn) New York City
Cooke, Robert Anderson, A.B., *Rutgers*	New Brunswick, N. J.
Cowan, Albert, Ph.B., Ph.D., *Rome*, Italy	(Mhtn) New York City
Craig, Henry Augustus	New Germantown, N. J.
Cramp, Walter Concemore, A.B., *Colgate*	Oneida, N.Y.
Crissey, Frank Foster	Newark, N. J.
Cronin, Eugene John	Worcester, Mass.

Cussler, Edward..Catskill, N. Y.
Dattelbaum, Maurice Jacob........................(Bklyn) New York City
Davidson, Isidor, A.B., *N. Y. City College*...........(Mhtn) New York City
Deal, Fred. Augustus, M.D., *Albany Medical College*.....Green Island, N. Y.
de Somoskeoy, Victor Henry..........................Canandaigua, N. Y.
Dettman, Charles August...............................Buffalo, N. Y.
Dieffenbach, Richard Hagen............................Newark, N. J.
Dingman, John Clarence.............................Spring Valley, N. Y.
Dingman, Thomas Alva...............................Spring Valley, N. Y.
Dolphin, Benjamin Edward...........................Kansas City, Mo.
Donohue, Leo Thomas.................................Paterson, N. J.
Duckett, Warren James...............................Skaneateles, N. Y.
Dudley, Benjamin William............................Lexington, Ky.
Dudley, Gerry Brown, A.B., *Swarthmore*..................Ashmore, Ill.
Dugro, Frank Anthony..............................(Mhtn) New York City
Eichhorn, Herman, B.S., *N. Y. City College*..........(Mhtn) New York City
Ely, Arthur Edgar, A.B., *Yale*..........................East River, Conn.
Eytinge, Ernest Oliver Joseph.......................(Mhtn) New York City
Fassett, Edwin Charles...............................Kingston, N. Y.
Feely, William Henry Pallister......................(Bklyn) New York City
Fichter, Louis......................................(Mhtn) New York City
Finkelstein, Harry..................................(Mhtn) New York City
Flaks, Ary Provisor, *Imperial University of Moscow*....(Mhtn) New York City
Flatto, Isadore.....................................(Mhtn) New York City
Flynn, David Joseph, A.B., *Georgetown*...................Boston, Mass.
Frankel, Edward, Jr................................(Mhtn) New York City
Freeman, James Voorhees, Jr...........................Sewaren, N. J.
Frey, David Ingham.................................(Mhtn) New York City
Frucht, Simon......................................(Mhtn) New York City
Gain, John Cameron.................................(Mhtn) New York City
Gaudineer, Edward Harris.............................Maplewood, N. J.
Gellert, Samuel....................................(Mhtn) New York City
Georgi, Herve Washington, A.B., *Brown*................Jamestown, N. Y.
Ghiglione, August Joseph...............................Arrochar, N. Y.
Glanz, Hyman, A.B., *N. Y. City College*.............(Mhtn) New York City
Goldstone, Karl Harold.............................(Mhtn) New York City
Gould, Louis Ammon....................................Danbury, Conn.
Graham, Clarence Minturn...........................Poughkeepsie, N. Y.
Graham, Henry Flack......................................Troy, N. Y.
Greenway, James Cowan, A.B., *Yale*....................Hot Springs, Ark.
Grussner, Albert...................................(Mhtn) New York City
Gutherson, William Francis, B.S., *N. Y. University*..........Paterson, N. J.
Hale, Gordon Dyer, B.P., *Brown*.......................Providence, R. I.
Hamill, Patrick Joseph Paul, A.B., A.M., *St. Peter's College*.Jersey City, N. J.
Hance, Joseph Campbell............................New Philadelphia, O.
Hardenberg, Daniel Sayer, Jr..........................Jersey City, N. J.
Harp, Henry John, Jr...............................Round Lake, N. Y.

Harris, Burton Seymour	Westfield, N. J.
Hart, Alfred John	(Mhtn) New York City
Haviland, David	(Mhtn) New York City
Hennen, William Davison	(Mhtn) New York City
Hibler, George Hunt	Morristown, N. J.
Hirrschoff, Ernest Augustus Frederick, Jr.	Newark, N. J.
Holmes, Clarence Albert, B.S., *New York University*	(Br) New York City
Holthausen, William Frederick	(Bklyn) New York City
Hood, Philip Garfield	Newark, N. J.
Hooker, Henry Lyman	(Mhtn) New York City
Horowitz, Benjamin, A.B., *N. Y. City College*	(Mhtn) New York City
Horowitz, Philip	(Mhtn) New York City
Hull, Allen	(Bklyn) New York City
Hull, Edward Taylor, B.S., *Boston University*	Greenfield Hill, Conn.
Hussey, Frederic Vinal, Ph.B., *Brown*	Franklin, Mass.
Ison, Virgil Strother	Baker City, Ore.
Jackson, Albert	Campgaw, N. J.
Jacobs, Louis	(Mhtn) New York City
Jarcho, Julius	(Mhtn) New York City
Jeffrey, Stewart Lee	(Mhtn) New York City
Joseph, Barnet	(Mhtn) New York City
Karpas, Morris Jacob	(Mhtn) New York City
Katz, David	(Mhtn) New York City
Keegan, Thomas Daniel	Jersey City, N. J.
Kemp, Charles	(Bklyn) New York City
Kennard, William Sorrento	Newark, N. J.
Kimball, Cleaveland Cady, A.B., *Amherst*	(Mhtn) New York City
Kreshover, Jacob Siegfried	(Mhtn) New York City
Kudlich, Hans Edgar, A.B., *N. Y. City College*	(Mhtn) New York City
Lathrop, Harold Wilkinson	Livingston Manor, N. Y.
Lathrope, George Haines, A.B., *Princeton*	Scranton, Pa.
Latta, Jefferson Brown	Friendship, N. Y.
Leggett, Noel Bleecker	(R) New York City
Leland, Lee Harmon	Clifton Springs, N. Y.
Levy, Bernard	(Mhtn) New York City
Levy, Julius	Newark, N. J.
Lewin, Frank Spalding	(Bklyn) New York City
Lohman, William Henry	(Bklyn) New York City
Long, James McMaster, A.B., *Yale*	Pittsburg, Pa.
Lorenzo, Frank Alexander	Punxsutawney, Pa.
McCallie, Joseph Madison, A.B., *Univ. of Tennessee*	Knoxville, Tenn.
McNamara, Edward Joseph	Bath, N. Y.
McNenney, Claude Emmet, A.B., *St. Peter's*	Jersey City, N. J.
McSheehy, Morgan Thomas, A.B., *Holy Cross*	Whitinsville, Mass.
MacDonald, Arthur Francis	Waterbury, Conn.
MacKellar, William Clement	Bridgeport, Conn.
MacLachlan, John, III., L. S. C., *Peekskill Mil. Academy*	Halifax, N. S.

Maguire, John Drummond, B.L., *Kentucky University*	Lexington, Ky.
Malcolm, Joseph Douglas	(Mhtn) New York City
Mason, Howard Harris, A.B., *Brown University*	Providence, R. I.
Mehler, George Joseph, A.B., *Canisius*	(Mhtn) New York City
Meyer, Guy Herbert	Paris, Tex.
Meyer, Julian Jacques, A.B., *N. Y. City College*	(Mhtn) New York City
Miner, Lucien Luttrell	(Mhtn) New York City
Mittendorf, Alfred Derby, A.B., *Princeton*	(Mhtn) New York City
Moeller, Harry Nicholas	(Mhtn) New York City
Moffit, Albert Rowcliffe, A.B., *Williams*	Princeville, Ill.
Molony, John Joseph	(Mhtn) New York City
Monahan, Frank Murray, A.B., *Holy Cross*	Hartford, Conn.
Moorhead, Robert Lowry, Jr.	(Bklyn) New York City
Morsch, Henry William	(Bklyn) New York City
Munro, George	London, England
Murphy, Edward John, A.B., *Holy Cross*	(Bklyn) New York City
Murphy, Francis Patrick, A.B., *St. John's*	North Tarrytown, N. Y.
Murphy, John James	New Haven, Conn.
Myres, Magnus Jacob	(Mhtn) New York City
Neef, Frederick Emil, B.S., B.L., M.L., *Notre Dame Univ.*	Springfield, Ill.
Newman, Charles Augustine, A.B., *N. Y. City College*	(Mhtn) New York City
Noble, Urbane Alexander	Edwards, N. Y.
Nutting, Hugh	Oswego, N. Y.
O'Brien, John Murray	Binghamton, N. Y.
O'Connor, John Charles	Rochester, N. Y.
O'Crowley, Clarence Rutherford	Newark, N. J.
Olcott, George Potts, Jr.	East Orange, N. J.
Paddock, Brace Whitman, A.B., *Yale*	Pittsfield, Mass.
Park, Edwards A., A.B., *Yale*	Gloversville, N. Y.
Pentz, James Bolton	(R) New York City
Peters, John Dodge, A.B., *Yale*	Great Barrington, Mass.
Pillow, James Hargraves, A.B., *Univ. of Virginia*	Helena, Ark.
Pinkus, William	(Mhtn) New York City
Prettyman, Virgil, A.B., A.M., *Dickinson*	Yonkers, N. Y.
Quinn, Charles Michael	Milwaukee, Wis.
Randall, Harry Judkins	St. Johnsbury, Vt.
Rice, Donald Britton	Springfield, Mass.
Ringer, Paul Henry	(Mhtn) New York City
Robbins, George Orrin, Jr.	Waterbury, Conn.
Robinson, Robert Cornelius, Ph.B., *Brown University*	Providence, R. I.
Rodger, Clarence Andrew	Hammond, N. Y.
Rodriguez, José Antero, A.B., *Havana University*	Havana, Cuba
Rose, Julius Townsend	Stephentown, N. Y.
Ross, Edward Kingsbury, Ph.G., *N. Y. Coll. of Pharm*	Hoboken, N. J.
Ross, William Holmes	(Bklyn) New York City
Russell, David Lewis	Jersey City, N. J.
Sartori, Antonio Joseph	(Mhtn) New York City

Saunders, Truman Laurance, A.B., *Williams*	(Mhtn) New York City
Schenck, George Henry, Ph.B., *Lafayette*	East Hampton, N. Y.
Schlivek, Kaufman, B.S., *N. Y. City College*	(Mhtn) New York City
Schück, Trangott John	Hoboken, N. J.
Sherman, Arthur Leighton, A.B., *Yale*	Castleton, Vt.
Silliman, John Calvin, A.B., *Univ. of Virginia*	Palestine, Tex.
Slack, Joseph Daniel	Litchfield, Conn.
Slamovitz, James	(Mhtn) New York City
Smith, Ellsworth Johnson, Ph.B., *Yale*	North Haven, Conn.
Smith, Joseph Jacob	Hudson, N. Y.
Snyder, Henry	Bloomfield, N. J.
Spannhake, Herman Louis	Hoboken, N. J.
Sprague, Charles Harry	Peterboro, N. H.
Stevens, Carol Tefft, B.S., *Iowa State College*	Iowa Falls, Ia.
Stillman, Charles Kirtland, Ph.B., *Brown University*	Mystic, Conn.
Sumner, John True, A.B., *Univ. of Nebraska*	Omaha, Neb.
Sussman, Philip	(Mhtn) New York City
Takami, Toyohiko Campbell	(Mhtn) New York City
Talmage, John Beekman, Jr	(Mhtn) New York City
Taschman, Max, A.B., *N. Y. City College*	(Mhtn) New York City
Thomas, Joseph Simon, A.B., *Princeton*	Dunellen, N. J.
Thomas, Merrick Dowdell, B.S., *A. and M. College*	Gold Hill, Ala.
Upson, Willis Richard	Waterbury, Conn.
Vail, Robert William	City Island, N. Y.
Vanamee, Talcott Ostrom, A.B., *Hamilton*	Newburgh, N. Y.
Vandenberg, Joseph	(Mhtn) New York City
Vaughan, Harold Stearns, D.D.S., *Univ. of Pennsylvania*	(Mhtn) New York City
Veve, John, A.B., *Porto Rico*	(R) New York City
Wainright, John Maxon Brown	Brielle, N. J.
Walser, Carl William	(R) New York City
Ward, Albert H	Paterson, N. J.
Ward, Edwin St. John, A.B., *Amherst*	Amherst, Mass.
Ward, Ralph Francis	(Mhtn) New York City
Ward, Wilbur, A.B., *Williams*	Bloomfield, N. J.
Weidmann, Otto William	(Bklyn) New York City
Weinstock, Louis	(Mhtn) New York City
Wheeler, James Alexander	Skaneateles, N. Y.
White, Charles Stevens, A.B., *Harvard*	(Bklyn) New York City
Whiton, Walter Humstone	(Bklyn) New York City
Wiener, Sol, A.B., *N. Y. City College*	(Mhtn) New York City
Williams, George Alesbury	Summit, N. J.
Williams, James Jeremiah, Jr	(Mhtn) New York City
Wilson, Frederic Hart	(Bklyn) New York City
Wise, Fred	(Mhtn) New York City
Wise, Lester Drummond	(Bklyn) New York City
Witthaus, Guy	(Mhtn) New York City
Woodruff, Isaac Ogden, Jr., A.B., *N. Y. City College*	(Mhtn) New York City

Woodson, Charles Whitehead, A.B., *Columbia*..............Salisbury, N. C.
Wynne, Shirley Wilmote............................(Mhtn) New York City
York, Harry Jacob, B.S., *Pennsylvania State College*.....Warriors Mark, Pa.
Zelenko, David.....................................(Bklyn) New York City
Zellhoefer, Herbert Charles, A.B., *Yale*.............(Bklyn) New York City
First Year Class................................ 239

SPECIAL STUDENTS

Ardagh, Arthur Edward, M.D., *Trinity University, Toronto*....Orillia, Can.
Beekman, Walter Nathaniel........................(Bklyn) New York City
Brewster, George Franklin, M.D., *N. Y. Homæopathic College*, (Mhtn) New York City
Brown, Benjamin Willis, M.D., *University of Virginia*..(Mhtn) New York City
Camerden, Henry Burgess..........................(Mhtn) New York City
Chandler, Thomas Evans, Ch.B., M.D., *Boston*.......(Mhtn) New York City
Crudden, Francis...................................(Mhtn) New York City
Diaz y Rodriguez, Joseph Anastasias, A.B., *Instituto Civil;* M.D., *Columbia*, Puerto Rico
Dudley, William Lawrence, B.S., *Swarthmore*........(Mhtn) New York City
Eagleton, Wells Phillips, M.D., *Columbia*..................Newark, N. J.
Ellis, Rudulph Pell, B.S., *N. Y. City College*.........(Mhtn) New York City
Fiaschi, Biero..................................... (Mhtn) New York City
Fielding, Fred Gershom, M.D., *Columbia*................Glens Falls, N. Y.
Fischer, Edward Wagner......................Edgewater-on-Hudson, N. J.
Frank, Ben Fulton, M.D., *Kentucky School of Medicine*.......Louisville, Ky.
Friele, James Herbert..................................Jersey City, N. J.
Gertzon, Sven, A.B., *College of Upsala, Sweden*......(Mhtn) New York City
Goetz, St. Elmo.....................................(Mhtn) New York City
Goldstein, David Isidor, A.B., *N. Y. City College*.....(Mhtn) New York City
Harrigan, Anthony Hart...........................(Bklyn) New York City
Harris, Albert......................................(Mhtn) New York City
Henning, David Meriwether, M.D., *Memphis Hospital Medical College*, Memphis, Tenn.
Henriquez, Richard Anthony........................(Mhtn) New York City
Hunn, John Townsend Sharpless........................Plainfield, N. J.
Jones, Charles Frederick..............................Elizabeth, N. J.
Levine, Edward Isaac...............................(Mhtn) New York City
McBride, David Allen..................................Plattsburgh, N. Y.
McIntyre, Henry Blodgett...............................Randolph, Vt.
MacDonald, Joseph, Jr...................................Newark, N. J.
Morg, Richard Joseph..............................(Bklyn) New York City
Morgan, Fordé, M.D., *Bellevue H. M. C.*............(Mhtn) New York City
Narguiledjian, Vahan Sebrouh........................(Mhtn) New York City
Narwood, Holmes Montgomery.....................(Bklyn) New York City
Neff, Paul Alvin, M.D., *Columbia*..........................Louisville, Ky.
Paulsen, Martin Anton...............................(Br) New York City
Peters, Charles Manly..................................Jersey City, N. J.

Reissman, Erwin	(Mhtn) New York City
Rucker, Edmund Winchester, Jr., B.S., *Howard*	Birmingham, Ala.
Sahlin, Nels Sassar	(Bkln) New York City
Schulman, Maximilian	(Mhtn) New York City
Skillman, J. Clark	Newark, N. J.
Sofge, Frank Jacob, Ph.G., *Cincinnati College of Pharmacy*	Cincinnati, O.
Somers, Andrew Bartholomew, M.D., *Columbia*	Omaha, Neb.
Stephens, John Miller, A.B., *Georgetown College*	Paris, Ky.
Stern, Adolph, A.B., *N. Y. City College*	(Br) New York City
Sullivan, James Edward	(Bklyn) New York City
Watson, Elbert Lycurgus	Newport, Ark.
West, Gerald Montgomery, A.B., A.M., Ph.D., *Columbia*,	(Mhtn) New York City
Wilkinson, Ross	Jersey City, N. Y.
Special Students	49

SUMMARY

Fourth Year Class	147
Third Year Class	150
Second Year Class	190
First Year Class	239
Special Students	49
STUDENTS PRIMARILY REGISTERED UNDER THIS FACULTY	775
STUDENTS FROM OTHER FACULTIES OF THE UNIVERSITY:	
Seniors of the College	6
Total	781

SCHOOL OF MINES
SCHOOL OF CHEMISTRY
SCHOOL OF ENGINEERING
SCHOOL OF ARCHITECTURE

UNDER THE DIRECTION OF THE FACULTY OF APPLIED SCIENCE

The following departments are represented in the Faculty:

ARCHITECTURE
ASTRONOMY
CHEMISTRY
CIVIL ENGINEERING
ELECTRICAL ENGINEERING
MECHANICAL ENGINEERING
SANITARY ENGINEERING
GEOLOGY
MATHEMATICS
MECHANICS
METALLURGY
MINERALOGY
MINING
PHYSICS

Officers of the Faculty

Frederick R. Hutton, C.E., Ph.D.,
Dean of the Faculty, and Ex-Officio Member of the University Council
Robert Peele, E.M. . . . . . *Secretary of the Faculty*
Henry S. Munroe, E.M., Ph.D.,
Elected Delegate to the University Council

Standing Committees

Committee on Administration: Professors Hutton, Van Amringe, Crocker, Hamlin, Howe

Committee on Admissions and Examinations: Professors Hutton, Sherman, Kemp

The Faculty

Seth Low, LL.D., *President*

Charles F. Chandler, Ph.D., M.D., LL.D., *Professor of Chemistry*

J. Howard Van Amringe, A.M., Ph.D., L.H.D., LL.D., *Professor of Mathematics*

Ogden N. Rood, A.M., *Professor of Physics*

Henry S. Munroe, E.M., Ph.D., *Professor of Mining, and Delegate to the University Council*

William R. Ware, B.S., LL.D., *Professor of Architecture*

Frederick R. Hutton, A.M., C.E., Ph.D., *Professor of Mechanical Engineering, and Dean*

John Krom Rees, A.M., E.M., Ph.D., *Professor of Astronomy, and Director of the Observatory*

Alfred D. F. Hamlin, A.M., *Adjunct Professor of Architecture*
Alfred J. Moses, E.M., Ph.D., *Professor of Mineralogy*
Frank Dempster Sherman, Ph.B., *Adjunct Professor of Architecture*
James F. Kemp, A.B., E.M., *Professor of Geology*
Robert Peele, E.M., *Adjunct Professor of Mining, and Secretary of the Faculty*
William Hallock, A.B., Ph.D., *Adjunct Professor of Physics*
Francis B. Crocker, E.M., Ph.D., *Professor of Electrical Engineering*
Michael I. Pupin, Ph.D., *Adjunct Professor of Mechanics*
William H. Burr, C.E., *Professor of Civil Engineering*
Robert S. Woodward, C.E., Ph.D., *Professor of Mechanics and Mathematical Physics*
Henry M. Howe, A.M., S.B., *Professor of Metallurgy*
Charles E. Pellew, E.M., *Adjunct Professor of Chemistry*
Earl B. Lovell, C.E., *Adjunct Professor of Civil Engineering*
Wm. Ledyard Cathcart, *Adjunct Professor of Mechanical Engineering*
Charles R. Richards, B.S., *Professor of Manual Training in Teachers College*

Note: For other officers of instruction see departmental statements and special circulars.

Emeritus Officer

Nathaniel L. Britton, E.M., Ph.D., *Emeritus Professor of Botany*

Courses of Instruction

The Faculty of Applied Science offers eleven technical courses leading to professional degrees. These courses consist entirely of required work. Besides this professional instruction the Faculty permits certain subjects to be studied in partial fulfilment of the requirements for the degrees of A.B., A.M., and Ph.D., and also, under special conditions, admits students who are not candidates for a degree, to pursue special subjects.

Undergraduate Courses for the Professional Degrees

In the School of Mines			
1.	Mining Engineering	leading to the degree of	E.M.
2.	Mining Engineering, Geological Option	" " "	E.M.
3.	Metallurgy	" " "	Met.E.
In the School of Engineering			
4.	Civil Engineering	" " "	C.E.
5.	Sanitary Engineering	" " "	C.E.
6.	Electrical Engineering	" " "	E.E.
7.	Mechanical Engineering	" " "	Mech.E.
In the School of Chemistry			
8.	Analytical Chemistry	" " "	B.S.
9.	Industrial Chemistry	" " "	B.S.
10.	Organic Chemistry	" " "	B.S.
In the School of Architecture			
11.	Architecture	" " "	B.S.

These courses are intended to meet the requirements of the several professions indicated. Many of the courses permit a certain amount of specialization, particularly in the fourth year. The courses in the School of Mines are so arranged that the student can emphasize the engineering, the metallurgical, or the geological side of his profession, while one of the alternative courses in Mechanical Engineering is designed for those who wish to make a specialty of mine plant and machinery. A course in Sanitary Engineering (leading to the degree of Civil Engineer) is provided for those who wish to prepare themselves for this important branch of civil engineering. The Mechanical Engineering course offers three alternatives in the fourth year, emphasizing respectively the dynamic, the electrical, and the mining side of the mechanical engineer's work. Three courses are offered in Chemistry, for analytical chemists, industrial chemists, and organic chemists respectively. The School of Architecture offers two alternatives in the fourth year—a course of Advanced Architectural History and Design, and a course of Advanced Architectural Engineering and Practice. Full particulars regarding each of these courses of study are contained in special circulars, which will be forwarded on application to the Secretary of the University.

Modifications of Regular Courses

Under proper restrictions. and for reasons of weight, the Faculty will permit a student to substitute one study for another in any of the regular courses (see By-Law 2). By taking advantage of this provision students can fit themselves for special or unusual lines of professional work without losing their degree.

Special Privileges for Graduate Students

Graduates of colleges or scientific schools are admitted to advanced standing in any of the regular professional courses, as candidates for a degree. Such students are given credit for all courses of which they have had the substantial equivalent, and are permitted to take any course of study for which they are qualified. The lecture hours are so arranged that such students can generally fulfil all the requirements for a degree in one or two years. Such men should make arrangements to attend, before entrance if possible, the required summer classes of the course they intend to take.

Elective Courses Open to Students in the College

All the studies of the first year, and many of the second-year courses of the School of Mines, the School of Chemistry, the School of Engineering, and the School of Architecture, are included among the electives offered to students of Columbia College.

Any and all of the studies of the second year in the above schools are open to members of the Senior class in the College who are properly qualified.

By a judicious arrangement of his course of study from the beginning, a graduate of Columbia College can thus enter the third year of any of the above schools.

University Courses in Applied Science

The Faculty of Applied Science has charge of candidates for the degrees of Master of Arts and Doctor of Philosophy who desire to undertake advanced study or special investigations in mining, metallurgy, engineering (civil, sanitary, electrical, and mechanical), or in architecture. Information as to these higher degrees will be found in the departmental statements, as follows:

ARCHITECTURE, page 69
CIVIL AND SANITARY ENGINEERING, page 95
ELECTRICAL ENGINEERING, page 102
MECHANICAL ENGINEERING, page 107
METALLURGY, page 146
MINING, page 152

The University courses in Anatomy; Astronomy; Bacteriology; Botany; Chemistry, Inorganic and Organic; Geology, including Lithology and Palæontology; Mathematics; Mineralogy; Physics; Physiology; Zoölogy, are under the charge of the Faculty of Pure Science.

Requirements for Admission

Every candidate for admission to the First-year class is required at the entrance examinations (see pages 15–28) to offer subjects amounting to fifteen points* as indicated below.

The candidate *must* offer:

Mathematics, elementary and advanced (page 24)............................	counting	4 points
Elementary Physics (page 25)............	"	1 point
Chemistry (page 17)......................	"	1 "
Freehand Drawing (page 18).............	"	1 "
English (page 18)........................	"	3 points
Elementary History (page 22)............	"	1 point
Elementary German (page 20)............	"	2 points

and two points from one of the following subjects:

Elementary French (page 19).............	"	2 "
Spanish (page 26)........................	"	2 "
Elementary Latin (page 23)..............	"	4 "

Diplomas and Certificates in Lieu of Examination

Diplomas and certificates of colleges and schools of science will be accepted, for the ground they cover, in lieu of examination, *if satisfactory to the examining officers.*† Each examining officer decides the question for his special department. No certificates in lieu of examination will be accepted, except those of degree-granting institutions, including the Regents of the University of the State of New York.

* For information as to the time and place at which examinations are held, definition of requirements, division of examinations, application blank, examinations outside of New York, etc., see pages 17 and 27 respectively

† Regents' academic diplomas, of 48 or more counts, are accepted in lieu of examinations for entrance, provided that such diplomas include 14 academic counts in Mathematics, and 8 academic counts each in English, German, French, or Latin.

Regents' pass-cards and certificates are accepted for the subjects covered only.

Certificates and diplomas should be submitted to the examining officers, for their approval, before the day set for the entrance examinations in each case.

Admission and Conditions

The Committee on Admissions will decide, and report to the Dean, within twelve days after the conclusion of the examinations, those candidates who have been admitted, those who have been admitted conditionally, and those who have been rejected.

Students deficient in minor studies may be admitted conditionally, each case being considered on its merits by the Dean. Students admitted conditionally at the beginning of the academic year must satisfy all conditions in Mathematics within three months, and other conditions within a year or at such time as may be determined by the Dean. Students who fail to satisfy their entrance conditions within the time specified may be dropped from the roll.

The Committee on Admissions has jurisdiction over all questions arising under the rules relating to entrance examinations.

Advanced Standing

Candidates for advanced standing must pass satisfactory examinations upon the studies required for entrance to the Schools, and also upon those pursued by the class up to the time at which they propose to enter.

No candidates are admitted later in the course than the beginning of the fourth year.

Matriculation, Registration, and Enrolment

For the regulations prescribed for all students, see page 28. For such further regulations as may be prescribed for the students of the Schools of Applied Science, see the Circular of General Information for 1901-02.

By-Laws

1. No student is allowed to be a candidate for more than one of the professional degrees at the same time.

2. For reasons of weight the substitution of a subject in any professional course for an approved equivalent may be made by the Dean on the request of any candidate for a degree, provided that such substitution have the approval of the heads of the departments concerned and of the department giving the technical instruction that leads to the degree for which the student is a candidate.

Attendance

3. Prompt and regular attendance is required of every student upon the exercises and examinations of the courses for which he is enrolled.

4. The instructor in each subject shall keep a careful record of the attendance and, as far as practicable, of the scholarship of all students entitled to attend that subject. It shall be the duty of the instructor to warn any student found deficient in scholarship or irregular in attendance, and if such deficient scholarship or irregular attendance continue thereafter he shall report his name through the head of the department to the Dean.

5. Any student so reported may be put upon probation by the Dean, or debarred by him from examination, after due opportunity for personal explanation.

6. The Dean may also debar from examination in any subject any student reported to him as having incurred, with or without good reason, absences so numerous that, in the judgment of the head of the department concerned, it has become essential that he should repeat that subject ; and any student so debarred shall not be admitted to examination in that subject until he has attended the full course therein.

7. By special permission of the Dean, with the concurrence of the head of the department concerned, students may attend exercises not required in the class or subject to which they belong, provided that such attendance does not interfere with the required exercises of their class. Such students are held to the same rules as to attendance and examination in their extra studies as in the required studies of their class.

8. Any student who shall have passed a satisfactory examination in Columbia College in any study forming a part of one of the professional courses in the Schools under the Faculty of Applied Science will not be required to pursue that study a second time.

Examinations and Standing

9. Examinations will be held at the end of the first half-year (mid-year), or at the end of the year (final). Examinations for students debarred or deficient at the regular examinations will be held during the two weeks preceding the opening of the first half-year, and for members of the fourth class only, and for subjects belonging to that year only, in the first week in May. In the case of subjects and courses which require the use of collections and apparatus the delinquent examination will be held during the week following the holidays at Christmas.

10. A student found deficient in a subject at any of the stated examinations above provided will not be allowed a special examination in that subject.

11. A student absent from the regular mid-year, final, or delinquent examinations will be considered to have failed to pass that examination, and will not be allowed a special examination in that subject, except that, if the absence was due to unavoidable circumstances, the Dean may, on proper written certification of these circumstances, grant a special examination.

12. The fee for special examination is $5.00, which must be paid by the student before being admitted to the examination. If a student has special examinations in several subjects granted to him under one permit from the Dean specifying each subject, one fee of $5.00 shall cover them all.

13. Every officer, after the stated examinations have been held, shall report to the Registrar a list of all students who have attended his instruction, indicating their proficiency by numbers on a maximum of 10, a mark below 6 constituting a failure to pass. A student reported in grade 6 in a majority of the subjects pursued by him in any year, and not reported in grade 8 or higher in the greater part of the remainder of such subjects, will not be permitted to go on with his class without the consent of the Dean and the head of the department

giving the technical instruction that leads to the degree for which the student is a candidate. This consent will be given only for reasons of weight, but the student may enter the next succeeding class and pursue such subjects as may be required of him. Each student's record will be transmitted to him at the close of each year.

14. Any student who shall fail to pass in any of his studies at the regular examinations shall present himself for a second examination as above provided in By-law 9; failing to pass in this second examination he shall be required to repeat the subject with the next following class, but the Dean may exercise his discretion in excusing him from attendance on the exercises of such a subject, holding him to such other requirements as may seem advisable; failing a third time to pass a satisfactory examination in any study, his name shall be dropped from the roll of the School. A student so dropped shall have the right of appeal to the Faculty.

15. Students shall be enrolled in the class in which at least 75 per cent. of their hours are taken; provided, however, that no student shall be advanced from the first to the second class who has any entrance condition in mathematics, chemistry, or physics; no student shall be advanced to the third class who has any entrance conditions or any deficiencies of the first year; no student shall be admitted to the fourth class who has any deficiency in the first or second year, or more than one deficiency in the third year. A student dropped from the roll of his class shall not be permitted to attend any of the exercises of the said class without the consent of the Dean given for reasons of weight.

16. Students failing in any subject shall not be permitted to take advanced studies for which, by reason of such deficiency, they are not prepared; nor will such students be allowed to attend any Summer School without permission of the Dean.

17. Students who have received one degree and make application for another in the Schools of Applied Science must comply with all the requirements for that degree in force at the date of application.

Memoirs and Summer Work

18. During the vacations following the close of each year, memoirs on subjects, which will be assigned, are required of students in the courses of Civil Engineering, Electrical Engineering, Mechanical Engineering, of Analytical, Industrial, and Organic Chemistry, and of Architecture. The time specified for the completion and handing in of memoirs in chemistry and electrical engineering is November 1st of each year; for other memoirs and summer work the time specified is the second Monday in October.

19. Students of the second, third, and fourth classes who fail to hand in the memoirs, drawings, and other summer work required of them under the rules by a specified time, shall not be permitted to hand them in until the beginning of the next academic year, and failing in this latter requirement they shall be dropped from the roll of the class. This requirement may be waived, for reasons of weight, in the case of students of the fourth class.

Special Students

20. Graduates of the School of Mines, the School of Chemistry, the School of Engineering, and the School of Architecture, and of other institutions of like grade and standing may pursue any subjects taught in the Schools for which they are properly qualified.

21. Persons of mature age who are not graduates, but who show special qualifications, are sometimes permitted to pursue special courses, but this permission is not given to others. In the School of Architecture, professional draughtsmen of age and experience are received as special students for periods of two months at a time.

Laboratories and Drawing-Rooms

22. No student will be allowed without permission in a laboratory or drawing-room at a time when his attendance there is not due. During hours assigned for practical work in the laboratories and drawing-rooms the attendance of students is required.

Order

23. Good order and gentlemanly deportment are required of all students, as a condition of attendance.

NOTE.—To render unnecessary many inquiries it is here stated that there are no dormitories attached to the University at present.

Excursions

During the session, the students may visit the different mines, machine shops, electrical and metallurgical establishments, chemical works, and points of geological interest of the city and its environs, and excursions for this purpose are frequently organized by the different departments.

CLASS IN MECHANICAL ENGINEERING—During the third year students may join a volunteer class in practical mechanical engineering under the supervision of the Professor of Mechanical Engineering.

Summer Schools

SUMMER SCHOOL IN SURVEYING—During the latter part of the vacations following the close of the first and second years, students in the courses of mining, civil, and sanitary engineering, and metallurgy, are required to join the summer school in surveying under the direction of the Instructor in Civil Engineering.

During the latter part of the vacation following the close of the third year, students in the courses of mining and civil engineering are required to attend a class in railroad surveying for a period of four weeks. The students in the mining engineering course have the option of attending this class in the vacation following the close of the second year. This class is under the direction of the Instructor in Civil Engineering.

SUMMER SCHOOL IN GEODESY—During the vacation following the close of the third year, students in the courses of civil and sanitary engineering are required to attend a summer school in geodesy for six weeks. The class is under the supervision of the Professor of Astronomy.

SUMMER SCHOOL IN MINING—During the vacation following the close of the third year, students in the courses of mining engineering and metallurgy are required to visit mines and engage in actual work or study for five weeks, under the superintendence of the Adjunct Professor of Mining. This summer school is open to second-year students, *without conditions*, as an optional course.

SUMMER SCHOOL IN CHEMISTRY—Students of the second and third classes attend a summer school in industrial chemistry, under the direction of the instructors in that subject, spending three weeks in visiting and carefully studying chemical works of special interest in and near the city, as well as gas works, petroleum refineries, sugar refineries, dyeing and calico-printing establishments, soap, candle, and oleomargarine works, paper mills, and plants for the purification of water and of sewage.

During the summer vacations drawings or memoirs, on subjects which will be assigned, are required, as well as reports upon chemical works and manufactories which will be visited in company with the instructors in industrial chemistry. The time specified for the completion and handing in of the memoirs is November 1st of each year.

The drawings or memoirs must be accompanied by translations, of greater or less length, from French and German text-books or scientific periodicals upon subjects assigned to each student.

SUMMER SCHOOL IN METALLURGY—In the latter part of the vacation following the third year, students in metallurgy are required to devote two weeks to practical metallurgy. This summer school is open to students in mining engineering and chemistry as an optional course.

SUMMER SCHOOL IN GEOLOGY—The Trustees of the University have made an appropriation for a summer school in geology which defrays the expenses of a small squad of advanced students for about one month each summer, with the Professor of Geology. Also, in connection with the summer school in practical mining, at least one week is devoted to practical field geology, for the students in the courses of mining engineering and metallurgy.

Equipment and Collections

Detailed information as to the laboratories, museums, collections, libraries, and other facilities for study and research will be found in the departmental statements as follows:

Architecture, page 69
Chemistry, page 80
Civil and Sanitary Engineering, page 95
Electrical Engineering, page 102
Geology, page 120
Mechanical Engineering, page 107
Metallurgy, page 146
Mineralogy, page 150

Mining, page 152

Physics, page 183

Chemical and Assay Apparatus

1 Students may purchase apparatus of any of the dealers in the city.

2 To avoid inconvenience and expense to the students, and to secure a proper selection, the University undertakes, at considerable trouble and expense, to lend apparatus on the following conditions:

(*a*) Each student engaged in chemical or assay laboratory work, who draws apparatus, must make with the Bursar deposits, as follows, which will be credited to him:

Students taking first-year laboratory work in qualitative analysis	$20
Other chemical or assay laboratory work	40

In case of excessive draughts of apparatus an additional deposit may be required.

(*b*) Each student shall be entitled, on presenting his receipt at the apparatus room, to draw the regular set of apparatus for qualitative analysis, for quantitative analysis, for organic analysis, or for assaying, on account of his deposit, and from time to time to obtain ordinary articles that he may need, which will be charged to him. At the end of the year he will be credited with those articles which he returns in good order, and the value of those which he has injured or broken will be deducted from his deposit.

(*c*) The apparatus room will be open for issuing apparatus every day at convenient hours.

(*d*) No charge is made for ordinary chemicals.

COURSE IN MINING ENGINEERING

First Year

TRIGONOMETRY (Mathematics 3)—5 hours, first part of first half-year

ALGEBRA (Mathematics 3)—5 hours, second part of first half-year

ANALYTICAL GEOMETRY (Mathematics 4)—5 hours, second half-year

PHYSICS (Physics 1)—3 hours

CHEMISTRY (Chemistry 1)—4 hours

QUALITATIVE ANALYSIS (Chemistry 7)—2 hours, and 4 afternoons alternate weeks laboratory

BOTANY (Botany 8)—1 hour, and 1 afternoon laboratory, first half-year

ZOÖLOGY (Zoölogy 1)—1 hour, and 1 afternoon laboratory, second half-year

BLOWPIPE ANALYSIS and CRYSTALLOGRAPHY (Mineralogy 1 and 2)—2 hours, and 4 afternoons alternate weeks laboratory, first half-year

MINERALOGY (Mineralogy 4)—2 hours, and 1 afternoon laboratory, second half-year

SURVEYING (Civil Engineering 1)—2 hours, second half-year

DRAWING (Mechanical Engineering 1)—Drawing-room first half-year, afternoons of alternate weeks, second half-year

Summer Vacation

SURVEYING (Civil Engineering 15)—6 weeks field work

Second Year

CALCULUS (Mathematics 6)—3 hours

PHYSICS (Physics 3)—2 hours, first half-year

PHYSICAL LABORATORY (Physics 3)—2 hours

INDUSTRIAL CHEMISTRY (Chemistry 24)—3 hours

QUANTITATIVE ANALYSIS (Chemistry 12)—2 hours, and 3 afternoons and Saturdays alternate weeks laboratory, first half-year; recitation and alternate weeks laboratory, second half-year

MINERALOGY (Mineralogy 4)—2 hours, and 1 afternoon laboratory, first half-year

OPTICAL MINERALOGY (Mineralogy 6)—2 hours, and 1 afternoon laboratory for 2 months, second half-year

GEOLOGY (Geology 2)—3 hours

PETROGRAPHY (Geology 4)—2 hours, and 1 afternoon for 2 months, second half-year

EXCAVATION AND TUNNELLING (Mining 1)—3 hours, first half-year

BORING AND SHAFT SINKING (Mining 2)—2 hours, second half-year

SUPPORT OF MINE EXCAVATIONS (Mining 2a)—1 hour, second half-year

DRAWING (Mechanical Engineering 1 and 2)—3 afternoons alternate weeks drawing-room, first half-year

DESCRIPTIVE GEOMETRY AND DRAWING (Mechanical Engineering 1 and 2)—2 hours, and 4 afternoons alternate weeks drawing-room, second half-year

Summer Vacation

PRACTICAL MINING (Mining 11) *optional*—5 weeks

PRACTICAL METALLURGY (Metallurgy 20) *optional*—2 weeks

FIELD GEOLOGY (Geology 13) *optional*—1 week

SURVEYING (Civil Engineering 16)—6 weeks field work

RAILROAD SURVEYING (Civil Engineering 17)—4 weeks field work

See pages 65–206 for departmental statements with details of the above courses

COURSE IN MINING ENGINEERING

Third Year

ANALYTICAL MECHANICS (Mechanics 1)—3 hours

ASSAYING (Chemistry 17)—3 hours, second half-year, and 3 afternoons and Saturdays laboratory, second half-year

ECONOMIC GEOLOGY (Geology 3)—3 hours

RESISTANCE OF MATERIALS (Civil Engineering 5)—3 hours, first half-year; 2 hours, second half-year

TESTING OF MATERIALS (Mechanical Engineering 16)—Afternoon hours laboratory, second half-year

ENGINEERING OF POWER PLANTS (Mechanical Engineering 11)—1 hour, second half-year

MINING (Mining 3)—2 hours

ORE DRESSING (Mining 4)—2 hours

MINE CONSTRUCTIONS (Mining 7a)—1 hour, second half-year

METALLURGY (Metallurgy 1 and 2)—3 hours, first half-year

ELECTRICAL ENGINEERING (Electrical Engineering 5)—1 hour, and 1 afternoon laboratory, second half-year

GRAPHIC STATICS (Civil Engineering 6)—2 hours, second half-year

DESIGN, PROBLEMS (Civil Engineering 5 and 6)—2 afternoons, first half-year; afternoons of second half-year.

VACATION CLASS IN MECHANICAL ENGINEERING (Mechanical Engineering 35) *optional*—second half-year

Summer Vacation

PRACTICAL MINING (Mining 11)—5 weeks

PRACTICAL METALLURGY (Metallurgy 20) *optional*—2 weeks

FIELD GEOLOGY (Geology 13)—1 week

RAILROAD SURVEYING (Civil Engineering 17)—4 weeks field work

Fourth Year

THERMODYNAMICS (Mechanics 5)—2 hours, first half-year

THE STEAM ENGINE AND ITS ACCESSORIES (Mechanical Engineering 12)—2 hours, first half-year

THE STEAM BOILER AND ITS ACCESSORIES (Mechanical Engineering 13)—2 hours, second half-year

HEAT AND ITS APPLICATIONS (Mechanical Engineering 19)—3 hours, first half-year

MOTORS (Mechanical Engineering 20)—1 hour, second half-year

DYNAMICS OF MOTORS (Mechanical Engineering 21)—1 hour, second half-year

HYDRAULICS (Civil Engineering 12)—2 hours lectures with problem work, first half-year

MINE ENGINEERING (Mining 6)—2 hours, first half-year; 1 hour, second half-year

MINE PLANT (Mining 7)—3 hours, first half-year; 2 hours, second half-year

MINE SURVEYING (Mining 9)—1 hour, second half-year

MINE ADMINISTRATION (Mining 10)—1 hour second half-year

METALLURGY (Metallurgy 4 and 5)—3 hours

ORE-DRESSING LABORATORY (Mining 5)—Afternoon work for 3 weeks, second half-year

DESIGN OF MINE PLANT (Mining 8)—4 afternoons, first half-year; 3 afternoons, second half-year

PROJECT IN MINING

See pages 65–206 for departmental statements with details of the above courses

COURSE IN MINING ENGINEERING

Geological Alternative

(The first three years are the same as in the regular course)

Fourth Year

PETROLOGY (Geology 6)—2 hours, and 1 afternoon laboratory

PALÆONTOLOGY (Geology 7)—2 hours, and 1 afternoon laboratory

GEOLOGICAL EXAMINATIONS AND SURVEYS (Geology 10)—1 hour

THERMODYNAMICS (Mechanics 5)—2 hours, first half-year

HEAT AND ITS APPLICATIONS (Mechanical Engineering 19)—3 hours, first half-year

MINE ENGINEERING (Mining 6)—2 hours, first half-year; 1 hour, second half-year

MINE PLANT (Mining 7)—3 hours, first half-year; 2 hours, second half-year

MINE SURVEYING (Mining 9)—1 hour, second half-year

MINE ADMINISTRATION (Mining 10)—1 hour, second half-year

ORE-DRESSING LABORATORY (Mining 5)—Afternoon work for 3 weeks, second half-year

METALLURGY (Metallurgy 4 and 5)—3 hours

PROJECT—2 afternoons and Saturdays

See pages 65–206 for departmental statements with details of the above courses

COURSE IN METALLURGY

First Year

TRIGONOMETRY (Mathematics 3)—5 hours, first part of first half-year

ALGEBRA (Mathematics 3)—5 hours, second part of first half-year

ANALYTICAL GEOMETRY (Mathematics 4)—5 hours, second half-year

PHYSICS (Physics 1)—3 hours

CHEMISTRY (Chemistry 1)—4 hours

QUALITATIVE ANALYSIS (Chemistry 7)—2 hours, and four afternoons and Saturdays alternate weeks laboratory

BLOWPIPE ANALYSIS AND CRYSTALLOGRAPHY (Mineralogy 1 and 2)—2 hours, and 2 afternoons a week laboratory, first half-year

MINERALOGY (Mineralogy 4)—2 hours, and 1 afternoon laboratory, second half-year

SURVEYING (Civil Engineering 1)—2 hours, second half-year

DRAWING (Mechanical Engineering 1)—Drawing-room, first half-year, and afternoons of alternate weeks, second half-year

Summer Vacation

SURVEYING (Civil Engineering 15)—6 weeks field work

Second Year

CALCULUS (Mathematics 6)—3 hours

PHYSICS (Physics 3)—2 hours, first half-year

PHYSICAL LABORATORY (Physics 3)—2 hours

INDUSTRIAL CHEMISTRY (Chemistry 24)—3 hours

QUANTITATIVE ANALYSIS (Chemistry 9)—4 hours, and 3 afternoons, and Saturdays alternate weeks laboratory, with a fourth afternoon in second half-year

OPTICAL MINERALOGY (Mineralogy 6)—2 hours, and 1 afternoon laboratory for 2 months, second half-year

PETROGRAPHY (Geology 4)—2 hours, and 1 afternoon laboratory for 2 months, second half-year

MINERALOGY (Mineralogy 4)—2 hours, and 1 afternoon laboratory, first half-year

GEOLOGY (Geology 2)—3 hours

DRAWING (Mechanical Engineering 1 and 2)—2 hours, and 4 afternoons of alternate weeks drawing-room, first half-year; 4 afternoons alternate weeks drawing-room, second half-year

Summer Vacation

PRACTICAL METALLURGY (Metallurgy 20) *optional*—2 weeks

PRACTICAL MINING (Mining 11) *optional*—5 weeks

FIELD GEOLOGY (Geology 13) *optional*—1 week

SURVEYING (Civil Engineering 16) *optional*—6 weeks field work

RAILROAD SURVEYING (Civil Engineering 17)—4 weeks field work

See pages 65–206 for departmental statements with details of the above courses

COURSE IN METALLURGY

Third Year

ANALYTICAL MECHANICS (Mechanics 1)—3 hours

ASSAYING (Chemistry 17)—3 hours, and 3 afternoons and Saturdays laboratory, first half-year

ECONOMIC GEOLOGY (Geology 3)—3 hours

RESISTANCE OF MATERIALS (Civil Engineering 5)—3 hours, first half-year; 2 hours, second half-year

ENGINEERING OF POWER PLANTS (Mechanical Engineering 11) — 1 hour, second half-year

MINING (Mining 3)—2 hours

ORE DRESSING (Mining 4)—2 hours

MINE CONSTRUCTIONS (Mining 7a)—1 hour, second half-year

ELECTRICAL ENGINEERING (Electrical Engineering 5) — 1 hour, and 1 afternoon laboratory, second half-year

GENERAL METALLURGY (Metallurgy 1)—3 hours during October, November, and December

METALLURGY OF IRON AND STEEL (Metallurgy 2)—3 hours during January

METALLURGY OF IRON AND STEEL (Metallurgy 3)—4 hours, second half-year

PRACTICAL LABORATORY WORK (Metallurgy 6)—3 afternoons, second half-year

GRAPHIC STATICS (Civil Engineering 6)—2 hours, second half-year

DESIGN, PROBLEMS (Mechanical Engineering 22)—2 afternoons, first half-year; afternoons of second half-year

Summer Vacation

PRACTICAL METALLURGY (Metallurgy 20)—2 weeks

PRACTICAL MINING (Mining 11)—5 weeks

FIELD GEOLOGY (Geology 13)—1 week

VACATION CLASS IN MECHANICAL ENGINEERING (Mechanical Engineering 35)

Fourth Year

ANALYTICAL CHEMISTRY (Chemistry 14)—2 hours lectures and laboratory work, first half-year

THE STEAM ENGINE AND ITS ACCESSORIES (Mechanical Engineering 12)—2 hours, first half-year

THE STEAM BOILER AND ITS ACCESSORIES (Mechanical Engineering 13)—2 hours, second half-year

MOTORS (Mechanical Engineering 20)—1 hour, second half-year

DYNAMICS OF MOTORS (Mechanical Engineering 21)—1 hour, second half-year

ELECTRICAL ENGINEERING (Electrical Engineering 3)—1 hour, second half-year

MINE SURVEYING (Mining 9)—1 hour, second half-year

MINE ADMINISTRATION (Mining 10)—1 hour, second half-year

METALLURGY OF COPPER (Metallurgy 4)—4 hours during October, November, and December

METALLURGY OF LEAD, ETC. (Metallurgy 5)—4 hours during January and second half-year

ORE-DRESSING LABORATORY (Mining 5)—Afternoon work for three weeks, second half-year

DRAWING (in connection with Project)

PROJECT (and Thesis in Metallurgy)

See pages 65–206 for departmental statements with details of the above courses

COURSES IN ANALYTICAL, INDUSTRIAL, AND ORGANIC CHEMISTRY

First Year

Identical for the three Chemical Courses

TRIGONOMETRY (Mathematics 3)—5 hours, first part of first half-year

ALGEBRA (Mathematics 3)—5 hours, second part of first half-year

ANALYTICAL GEOMETRY (Mathematics 4)—5 hours, second half-year

PHYSICS (Physics 1)—3 hours

CHEMISTRY (Chemistry 1)—4 hours

QUALITATIVE ANALYSIS (Chemistry 7)—2 hours, and 4 afternoons, and Saturdays of alternate weeks laboratory, first half-year; 4 hours, and 4 afternoons and Saturdays of alternate weeks laboratory, second half-year

BLOWPIPE ANALYSIS AND CRYSTALLOGRAPHY (Mineralogy 1 and 2)—2 hours, and 2 afternoons a week laboratory, first half-year

MINERALOGY (Mineralogy 3)—2 hours, and 3 hours laboratory, second half-year

DRAWING (Mechanical Engineering 1)—1 hour first half-year, and drawing-room throughout the year

Summer Vacation

SUMMER WORK, a set of drawings on subjects to be assigned by the Instructor in Drawing, and other work assigned by the Professor of Chemistry

Second Year

Identical for the three Chemical Courses

CALCULUS (Mathematics 6)—3 hours

PHYSICS (Physics 3)—2 hours, first half-year

PHYSICAL LABORATORY (Physics 3)—2 hours

ORGANIC CHEMISTRY, ELEMENTARY (Chemistry 20)—3 hours

INDUSTRIAL CHEMISTRY (Chemistry 24)—4 hours

QUANTITATIVE ANALYSIS (Chemistry 9)—4 hours, and 3 afternoons and Saturdays laboratory, with a fourth afternoon in second half-year

PHYSICAL CHEMISTRY (Chemistry 3)—2 hours, and 3 hours laboratory, second half-year

MINERALOGY (Mineralogy 4)—2 hours, and 3 hours laboratory, first half-year

Summer Vacation

SUMMER SCHOOL IN CHEMISTRY, and Memoir on some subject to be assigned by the Professor of Chemistry

See pages 65–206 for departmental statements with details of the above courses

Third Year

Course A.—Analytical Chemistry

Course C.—Organic Chemistry

THEORETICAL MECHANICS (Mechanics 3)—2 hours

INDUSTRIAL CHEMISTRY (Chemistry 25)—4 hours

INDUSTRIAL CHEMISTRY, LABORATORY (Chemistry 26)—3 afternoons, first half-year

ASSAYING (Chemistry 17)—3 hours, and 3 afternoons and Saturdays laboratory, first half-year

QUANTITATIVE ANALYSIS (Chemistry 13)—4 hours, and 4 afternoons and Saturdays laboratory, second half-year

GENERAL METALLURGY (Metallurgy 1)—3 hours for 3 months, first half-year

METALLURGY OF IRON AND STEEL (Metallurgy 2)—3 hours for 1 month, first half-year

METALLURGY OF LEAD, ETC. (Metallurgy 5)—3 hours for 1 month, first half-year; 3 hours, second half-year

Summer Vacation

SUMMER SCHOOL IN CHEMISTRY, and Memoir on some subject to be assigned by the Professor of Chemistry

SUMMER SCHOOL IN METALLURGY

Third Year

Course B.—Industrial Chemistry

THEORETICAL MECHANICS (Mechanics 3)—2 hours

INDUSTRIAL CHEMISTRY (Chemistry 25)—4 hours

INDUSTRIAL CHEMISTRY, LABORATORY (Chemistry 26 and 27)—3 afternoons, first half-year; 2 afternoons, second half-year

ASSAYING (Chemistry 17)—3 hours, and 2 afternoons and Saturdays laboratory, first half-year

QUANTITATIVE ANALYSIS (Chemistry 13)—4 hours, and 3 afternoons and Saturdays laboratory, second half-year

GENERAL METALLURGY (Metallurgy 1)— 3 hours for 3 months, first half-year

METALLURGY OF IRON AND STEEL (Metallurgy 2)—3 hours for 1 month, first half-year

METALLURGY OF LEAD, ETC. (Metallurgy 5)—3 hours for 1 month, first half-year; 3 hours, second half-year

Summer Vacation

SUMMER SCHOOL IN CHEMISTRY, and Memoir on some subject to be assigned by the Professor of Chemistry

SUMMER SCHOOL IN METALLURGY

See pages 65–206 for departmental statements with details of the above courses

Fourth Year

Course A.—Analytical Chemistry

THERMODYNAMICS AND HYDROMECHANICS (Mechanics 20)—2 hours

INDUSTRIAL CHEMISTRY (Chemistry 25)—4 hours

INDUSTRIAL CHEMISTRY, LABORATORY (Chemistry 27)—2 afternoons, second half-year

ANALYTICAL CHEMISTRY (Chemistry 14)—2 hours, throughout year, and 3 afternoons and Saturday laboratory, second half-year

ORGANIC CHEMISTRY (Chemistry 21)—4 hours, first half-year, and 3 hours, second half-year, and at least 20 hours laboratory, first half-year

PHYSICAL CHEMISTRY (Chemistry 4)—3 hours throughout year, and 1 laboratory exercise, first half-year

ELECTRICAL ENGINEERING (Electrical Engineering 3)—1 hour

METALLURGY OF COPPER (Metallurgy 4)—3 hours for 3 months, first half-year

THESIS, on some chemical subject approved by the head of the department

Fourth Year

Course B.—Industrial Chemistry

THERMODYNAMICS AND HYDROMECHANICS (Mechanics 20)—2 hours

INDUSTRIAL CHEMISTRY (Chemistry 25)—4 hours

INDUSTRIAL CHEMISTRY, LABORATORY (Chemistry 28)—5 afternoons, second half-year

ORGANIC CHEMISTRY (Chemistry 21)—4 hours, first half-year, and 3 hours, second half-year, and at least 20 hours laboratory, first half-year

PHYSICAL CHEMISTRY (Chemistry 4)—3 hours, throughout year, and 1 afternoon laboratory, first half-year

ELECTRICAL ENGINEERING (Electrical Engineering 3)—1 hour, first half-year

ELECTRICAL ENGINEERING (Electrical Engineering 5)—1 hour, and 1 hour laboratory, second half-year

ENGINEERING OF POWER PLANTS (Mechanical Engineering 11, 12, and 13)—2 hours, first half-year, and 3 hours, second half-year

METALLURGY OF COPPER (Metallurgy 4)—3 hours for 3 months, first half-year

THESIS, on some chemical subject approved by the head of the department

Fourth Year

Course C.—Organic Chemistry

THERMODYNAMICS AND HYDROMECHANICS (Mechanics 20)—2 hours

INDUSTRIAL CHEMISTRY (Chemistry 25)—4 hours

INDUSTRIAL CHEMISTRY, LABORATORY (Chemistry 27)—2 afternoons, second half-year

ORGANIC CHEMISTRY (Chemistry 21)—6 hours, first half-year, and 5 hours, second half-year, and at least 20 hours laboratory, first half-year, and 3 afternoons and Saturdays laboratory, second half-year

PHYSICAL CHEMISTRY (Chemistry 4)—3 hours, throughout year, and one laboratory exercise, first half-year

ELECTRICAL ENGINEERING (Electrical Engineering 3)—1 hour

PHYSICAL CRYSTALLOGRAPHY (Mineralogy 8)—1 hour laboratory

THESIS, on some chemical subject approved by the head of the department

See pages 65–206 for departmental statements with details of the above courses.

COURSE IN CIVIL ENGINEERING

First Year

TRIGONOMETRY (Mathematics 3)—5 hours, first part of first half-year

ALGEBRA (Mathematics 3)—5 hours, second part of first half-year

ANALYTICAL GEOMETRY (Mathematics 4)—5 hours, second half-year

PHYSICS (Physics 1)—3 hours

CHEMISTRY (Chemistry 1)—4 hours

QUALITATIVE ANALYSIS (Chemistry 7)—2 hours, and 3 afternoons and Saturdays of alternate weeks laboratory

BOTANY (Botany 8)—1 hour, and 1 afternoon laboratory work, first half-year

SURVEYING (Civil Engineering 1)—2 hours, second half-year

DRAWING (Mechanical Engineering 1)—1 hour, and drawing-room, first half-year

DESCRIPTIVE GEOMETRY AND DRAWING (Mechanical Engineering 1)—2 hours, and drawing-room, second half-year

SHOP-WORK (Mechanical Engineering 3 and 4)—1 hour, and 1 afternoon in shops

Summer Vacation

SURVEYING (Civil Engineering 15)—6 weeks field-work

Second Year

CALCULUS (Mathematics 6)—3 hours

PHYSICS (Physics 3)—2 hours, first half-year

PHYSICAL LABORATORY (Physics 3)—2 hours

INDUSTRIAL CHEMISTRY (Chemistry 24)—3 hours

MINERALS OF BUILDING-STONES (Mineralogy 5)—2 hours, and 1 afternoon laboratory

ELEMENTS OF ELECTRICAL ENGINEERING (Electrical Engineering 7)—1 hour, first half-year, and 2 hours, second half-year

ROAD ENGINEERING (Civil Engineering 2)—2 hours, first half-year

WATER SUPPLY AND IRRIGATION (Civil Engineering 3)—2 hours, second half-year

GRAPHICS AND DRAWING (Mechanical Engineering 1 and 2)—2 hours, and drawing-room, first half-year

DRAWING (Mechanical Engineering 1 and 2)—2 hours, and drawing-room, second half-year

SHOP-WORK (Mechanical Engineering 6 and 7)—1 hour, first half-year, and 1 afternoon in shop

Summer Vacation

SURVEYING (Civil Engineering 16)—6 weeks field-work

See pages 65–206 for departmental statements with details of the above courses

COURSE IN CIVIL ENGINEERING

Third Year

ANALYTICAL MECHANICS (Mechanics 1)—3 hours
GEOLOGY (Geology 2)—3 hours
GEODESY (Astronomy 3)—2 hours
RESISTANCE OF MATERIALS (Civil Engineering 5)—3 hours, first half-year; 2 hours, second half-year
ENGINEERING OF POWER PLANTS (Mechanical Engineering 11)—1 hour, second half-year
MASONRY STRUCTURES (Civil Engineering 4)—1 hour
THEORY OF TRUSSES (Civil Engineering 7)—2 hours, second half-year
SEWAGE DISPOSAL (Civil Engineering 8)—2 hours, first half-year
GRAPHIC STATICS (Civil Engineering 6)—2 hours, second half-year
THEORY OF RAILROAD SURVEYING (Civil Engineering 14)—1 hour
ELECTRICAL ENGINEERING (Electrical Engineering 5)—1 hour, and 1 afternoon laboratory, second half-year
EARTH- AND ROCK-EXCAVATION (Mining 2b)—2 hours, first half-year
DESIGN, PROBLEMS (Civil Engineering 4, 5, 6, and 7)—Afternoon work
VACATION CLASS IN MECHANICAL ENGINEERING (Mechanical Engineering 35) *optional*—second half-year

Summer Vacation

PRACTICAL GEODESY (Astronomy 3)—6 weeks field-work
RAILROAD SURVEYING (Civil Engineering 17)—4 weeks field-work

Fourth Year

GEODESY (Astronomy 3)—2 hours, first half-year
DESIGN OF BRIDGES AND BUILDINGS (Civil Engineering 10)—2 hours
HYDRAULICS (Civil Engineering 12)—2 hours, first half-year
THERMODYNAMICS (Mechanics 4)—3 hours, second half-year
THE STEAM-ENGINE AND ITS ACCESSORIES (Mechanical Engineering 12)—2 hours, first half-year
THE STEAM BOILER AND ITS ACCESSORIES (Mechanical Engineering 13)—2 hours, second half-year
HEAT AND ITS APPLICATIONS (Mechanical Engineering 19)—3 hours, first half-year
MOTORS (Mechanical Engineering 20)—1 hour, second half-year
DYNAMICS OF MOTORS (Mechanical Engineering 21)—1 hour, second half-year
MACHINERY AND MECHANISM (Mechanical Engineering 18)—2 hours
METALLURGY OF IRON AND STEEL (Metallurgy 3)—3 hours, second half-year
PUMPS AND PUMPING ENGINES (Mechanical Engineering 27)—Course of 6 lectures, second half-year
FOUNDATIONS (Civil Engineering 11)—2 hours, first half-year
SEWERS AND HARBORS (Civil Engineering 13)—2 hours, second half-year
RAILROAD ENGINEERING (Mechanical Engineering 26)—3 hours, first half of first half-year; (Civil Engineering 9)—3 hours, second half of first half-year; 3 hours, second half-year
DESIGN, PROBLEMS (Civil Engineering 10, 11, 12, and 13)—Afternoon work
PROJECT OR THESIS, on some civil-engineering subject approved by the head of the department

See pages 65–206 for departmental statements with details of the above courses

COURSE IN SANITARY ENGINEERING

First Year

Identical with the first year of the course in Civil Engineering

Second Year

CALCULUS (Mathematics 6)—3 hours

PHYSICS (Physics 3)—2 hours, first half-year

PHYSICAL LABORATORY (Physics 3)—2 hours

INDUSTRIAL CHEMISTRY (Chemistry 24)—3 hours

MINERALS OF BUILDING-STONES (Mineralogy 5)—2 hours, and 1 afternoon laboratory

ROAD ENGINEERING (Civil Engineering 2)—2 hours, first half-year

WATER SUPPLY AND IRRIGATION (Civil Engineering 3)—2 hours, second half-year

SANITARY ENGINEERING OF BUILDINGS (Civil Engineering 18)—2 hours, first half-year

* GENERAL PRINCIPLES OF HYGIENE AND SANITARY SCIENCE (Civil Engineering 19)—2 hours, second half-year

* GENERAL BIOLOGY—2 hours, second half-year

GRAPHICS AND DRAWING (Mechanical Engineering 1 and 2)—2 hours, and drawing-room

Summer Vacation

SURVEYING (Civil Engineering 16)—6 weeks field-work

See pages 65–206 for departmental statements with details of the above courses

*** These courses may be modified and rearranged**

COURSE IN SANITARY ENGINEERING

Third Year

ANALYTICAL MECHANICS (Mechanics 1)—3 hours

GEOLOGY (Geology 2)—3 hours

GEODESY (Astronomy 3)—2 hours

RESISTANCE OF MATERIALS (Civil Engineering 5)—3 hours, first half-year; 2 hours, second half-year

* MICROSCOPY—2 hours, and 2 hours laboratory

ENGINEERING OF POWER PLANTS (Mechanical Engineering 11)—1 hour, second half-year

MASONRY STRUCTURES (Civil Engineering 4)—1 hour

THEORY OF TRUSSES (Civil Engineering 7)—2 hours, second half-year

SEWAGE DISPOSAL (Civil Engineering 8)—2 hours, first half-year

GRAPHIC STATICS (Civil Engineering 6)—2 hours, second half-year

THEORY OF RAILROAD SURVEYING (Civil Engineering 14)—1 hour

ELECTRICAL ENGINEERING (Electrical Engineering 5)—1 hour, and 1 afternoon laboratory, second half-year

DESIGN, PROBLEMS (Civil Engineering 4, 5, 6, and 7)—Afternoon work

VACATION CLASS IN MECHANICAL ENGINEERING (Mechanical Engineering 35) *optional*—second half-year

Summer Vacation

PRACTICAL GEODESY (Astronomy 3)—6 weeks field-work

RAILROAD SURVEYING (Civil Engineering 17)—4 weeks field-work

Fourth Year

HEATING AND VENTILATION (Civil Engineering 20)—2 hours

DESIGN OF BRIDGES AND BUILDINGS (Civil Engineering 10)—2 hours, first half-year

HYDRAULICS (Civil Engineering 12)—2 hours, first half-year

THERMODYNAMICS (Mechanics 4)—3 hours, second half-year

THE STEAM-ENGINE AND ITS ACCESSORIES (Mechanical Engineering 12)—2 hours, first half-year

THE STEAM BOILER AND ITS ACCESSORIES (Mechanical Engineering 13)—2 hours, second half-year

HEAT AND ITS APPLICATIONS (Mechanical Engineering 19)—3 hours, first half-year

MOTORS (Mechanical Engineering 20)—1 hour, second half-year

DYNAMICS OF MOTORS (Mechanical Engineering 21)—1 hour, second half-year

* MICROBIOLOGY—2 hours, and 2 hours laboratory

PUMPS AND PUMPING ENGINES (Mechanical Engineering 27)—Course of 6 lectures, second half-year

FOUNDATIONS (Civil Engineering 11)—2 hours, first half-year

DRAINAGE OF COUNTRY DISTRICTS AND TOWNS (Civil Engineering 21)—2 hours, second half-year

SEWERS AND HARBORS (Civil Engineering 13)—2 hours, second half-year

RAILROAD ENGINEERING (Mechanical Engineering 26)—3 hours, first half of first half-year; (Civil Engineering 9)—3 hours, second half of first half-year; 3 hours, second half-year

DESIGN, PROBLEMS (Civil Engineering 10, 11, 12, and 13)—Afternoon work

PROJECT OR THESIS on some civil-engineering or sanitary-engineering subject approved by the head of the department

See pages 65–206 for departmental statements with details of the above courses

*** These courses may be modified and rearranged**

COURSE IN ELECTRICAL ENGINEERING

First Year

TRIGONOMETRY (Mathematics 3)—5 hours, first part of first half-year

ALGEBRA (Mathematics 3)—5 hours, second part of first half-year

ANALYTICAL GEOMETRY (Mathematics 4)—5 hours, second half-year

PHYSICS (Physics 1)—3 hours

CHEMISTRY (Chemistry 1)—4 hours

QUALITATIVE ANALYSIS (Chemistry 7)—2 hours, and on alternate weeks 4 afternoons laboratory and Saturday morning in laboratory

DESCRIPTIVE GEOMETRY AND DRAWING (Mechanical Engineering 1) — 2 hours, and 2 afternoons drawing-room

SHOP-WORK (Mechanical Engineering 3a and 4a)—1 afternoon in shop

Summer Vacation

SUMMER WORK, a set of drawings on subjects to be assigned by the Instructor in Drawing

NOTE—For those students who desire additional manual training there is a Summer Class in Shop-Work, at the Teachers College (Mechanical Engineering 5), for three weeks (100 hours) in June, provided that not less than twenty students present themselves for this instruction. The fee for this extra instruction is fifteen dollars

Second Year

CALCULUS (Mathematics 6)—3 hours

PHYSICS (Physics 3)—2 hours

PHYSICAL LABORATORY (Physics 3)—6 hours

INDUSTRIAL CHEMISTRY (Chemistry 24)—3 hours

QUANTITATIVE ANALYSIS (Chemistry 11)—15 lectures, and 60 hours laboratory work, first half-year

PROPERTIES OF MATERIALS (Mechanical Engineering 10)—2 hours, second half-year

ELEMENTS OF ELECTRICAL ENGINEERING (Electrical Engineering 7)—1 hour, first half-year ; 2 hours, second half-year

ENGINEERING OF POWER PLANTS (Mechanical Engineering 11)—1 hour, second half-year

GRAPHICS AND DRAWING (Mechanical Engineering 1 and 2)—2 hours, and 2 afternoons drawing-room

SHOP-WORK (Mechanical Engineering 6a and 7a)—1 hour, first half-year, and 1 afternoon in shop

Summer Vacation

MEMOIR, on subjects to be assigned by the Professor of Electrical Engineering

See pages 65–206 for departmental statements with details of the above courses

COURSE IN ELECTRICAL ENGINEERING

Third Year

ANALYTICAL MECHANICS (Mechanics 1)—3 hours

RESISTANCE OF MATERIALS (Civil Engineering 5)—3 hours, and 2 afternoons, first half-year; 2 hours, and 2 afternoons, second half-year

PROPERTIES OF MATERIALS (Mechanical Engineering 10)—2 hours, first half-year

TESTING OF MATERIALS (Mechanical Engineering 16)—1 afternoon laboratory, part of each half-year

MECHANICAL ENGINEERING LABORATORY (Mechanical Engineering 17)—1 afternoon, part of each half-year

THE STEAM-ENGINE AND ITS ACCESSORIES (Mechanical Engineering 12)—2 hours, first half-year

THE STEAM BOILER AND ITS ACCESSORIES (Mechanical Engineering 13)—2 hours, second half-year

DYNAMO AND MOTOR PRACTICE (Electrical Engineering 1)—3 hours, first half-year

TELEGRAPH AND TELEPHONE (Electrical Engineering 6)—1 hour

DIRECT-CURRENT LABORATORY (Electrical Engineering 10)—1 afternoon

ELECTRIC LIGHTING (Electrical Engineering 4)—3 hours, second half-year

DYNAMO AND MOTOR DESIGN (Electrical Engineering 15)—2 hours conference, 1 afternoon drawing-room, second half-year

THEORY OF DYNAMO AND MOTOR (Mechanics 6)—3 hours, first half-year; (Mechanics 7)—3 hours, second half-year

VACATION CLASS IN MECHANICAL ENGINEERING (Mechanical Engineering 35) *optional*—second half-year

Summer Vacation

A critical description of some existing electric light or power plant, with working drawings

Fourth Year

THERMODYNAMICS (Mechanics 4)—3 hours, second half-year

HEAT AND ITS APPLICATIONS (Mechanical Engineering 19)—3 hours, first half-year

MOTORS (Mechanical Engineering 20)—1 hour, second half-year

DYNAMICS OF MOTORS (Mechanical Engineering 21)—1 hour, second half-year

MACHINERY AND MECHANISM (Mechanical Engineering 18)—2 hours

METALLURGY (Metallurgy 3)—3 hours, second half-year

ELECTRO-CHEMISTRY (Electrical Engineering 3)—1 hour

ELECTRICAL ENGINEERING LABORATORIES (Electrical Engineering 11 and 12)—5 afternoons, first half-year; work in connection with graduation thesis, second half-year

ELECTRIC POWER (Electrical Engineering 2)—2 hours, first half-year

See pages 65–206 for departmental statements with details of the above courses

COURSE IN ELECTRICAL ENGINEERING

Fourth Year (*Continued*)

THEORY OF ALTERNATORS AND TRANSFORMERS (Mechanics 8)—3 hours, first half-year

ELECTRIC RAILWAY (Electrical Engineering 8)—2 hours, second half-year

MANAGEMENT OF ELECTRICAL PLANTS (Electrical Engineering 22)—2 hours, second half-year

ELECTRICAL DISTRIBUTION (Electrical Engineering 23)—2 hours, first half-year

THEORY OF VARIABLE CURRENTS (Mechanics 9)—2 hours, second half-year

ADVANCED THEORY OF ELECTRICITY (Mechanics 14, 14a, 15, 16, or 17) *optional*

THESIS, ORIGINAL INVESTIGATION, OR DESIGN, the subject of which must be approved by the Professor of Electrical Engineering

See pages 65–206 for departmental statements with details of the above courses

COURSES IN MECHANICAL ENGINEERING

First Year

TRIGONOMETRY (Mathematics 3)—5 hours, first part of first half-year

ALGEBRA (Mathematics 3)—5 hours, second part of first half-year

ANALYTICAL GEOMETRY (Mathematics 4)—5 hours, second half-year

PHYSICS (Physics 1)—3 hours

PHYSICAL LABORATORY (Physics 3)—5 hours, first half-year; 3 hours, second half-year

CHEMISTRY (Chemistry 1)—4 hours, first half-year; 3 hours, second half-year

QUALITATIVE ANALYSIS (Chemistry 7)—2 hours, and Friday afternoon and Saturday morning laboratory

DESCRIPTIVE GEOMETRY AND DRAWING (Mechanical Engineering 1)—2 hours, and 2 afternoons drawing-room

SHOP-WORK (Mechanical Engineering 3 and 4)—Equivalent to 2 afternoons in shop

Summer Vacation

SUMMER CLASS IN SHOP-WORK (Mechanical Engineering 5) — 100 hours in not over three weeks in June

MEMOIR OR DRAWINGS, on subjects to be assigned by the Instructor in Drawing (Mechanical Engineering 36)

Second Year

CALCULUS (Mathematics 6)—3 hours

PHYSICS (Physics 3)—2 hours

PHYSICAL LABORATORY (Physics 3)—2 hours

INDUSTRIAL CHEMISTRY (Chemistry 24)—3 hours

PROPERTIES OF MATERIALS (Mechanical Engineering 10)—2 hours, second half-year

ENGINEERING OF POWER PLANTS (Mechanical Engineering 11) — 1 hour, second half-year

ELEMENTS OF ELECTRICAL ENGINEERING (Electrical Engineering 7)—1 hour, first half-year; 2 hours, second half-year

GRAPHICS AND DRAWING (Mechanical Engineering 1 and 2)—2 hours, and 2 afternoons drawing-room

SHOP-WORK (Mechanical Engineering 6 and 7)—1 hour and 3 afternoons, and Saturdays shop practice

Summer Vacation

SUMMER CLASS IN SHOP-WORK (Mechanical Engineering 8)—100 hours in not over 3 weeks in June

MEMOIR, on some subject to be assigned by the Professor of Mechanical Engineering (Mechanical Engineering 37)

See pages 65–206 for departmental statements with details of the above courses

COURSES IN MECHANICAL ENGINEERING

Third Year

ANALYTICAL MECHANICS (Mechanics 1)—3 hours

THE STEAM-ENGINE (Mechanical Engineering 12)—2 hours, first half-year

THE STEAM BOILER (Mechanical Engineering 13)—2 hours, second half-year

MACHINERY AND MECHANISM (Mechanical Engineering 18)—2 hours

DESIGN (Mechanical Engineering 41)—3 hours

ENGINEERING DESIGN AND DRAWING (Mechanical Engineering 23)—1 hour

TESTING OF MATERIALS OF ENGINEERING (Mechanical Engineering 16) — 2 afternoons, part of each half-year, and Saturdays laboratory work

MECHANICAL ENGINEERING LABORATORY (Mechanical Engineering 17)—2 afternoons, part of each half-year

DYNAMO AND MOTOR PRACTICE (Electrical Engineering 1)—3 hours, first half-year

ELECTRIC LIGHTING (Electrical Engineering 4)—3 hours, second half-year

METALLURGY OF IRON AND STEEL (Metallurgy 3)—3 hours, second half-year

ELECTRICAL ENGINEERING LABORATORY (Electrical Engineering 10) — 1 afternoon

VALVE GEARING FOR ENGINES (Mechanical Engineering 23)—1 hour

SHOP-WORK (Mechanical Engineering 9)—1 afternoon

WORKSHOP ECONOMICS AND SPECIFICATIONS (Mechanical Engineering 30)—1 hour

DRAWING (Mechanical Engineering 22)—1 afternoon

VACATION CLASS IN MECHANICAL ENGINEERING (Mechanical Engineering 35)

Summer Vacation

SUMMER SCHOOL IN METALLURGY OF IRON AND STEEL (Metallurgy 20) — 2 weeks

MEMOIR, on subjects to be assigned by the Professor of Mechanical Engineering (Mechanical Engineering 38)

See pages 65–206 for departmental statements with details of the above courses

DYNAMIC ENGINEERING ALTERNATIVE, OR COURSE A

NOTE—The first three years are the same for all Alternatives

Fourth Year

THERMODYNAMICS (Mechanics 4)—3 hours, second half-year

HEAT AND ITS APPLICATIONS (Mechanical Engineering 19)—3 hours, first half-year

PUMPS, PUMPING, AND SPECIAL ENGINES (Mechanical Engineering 27)—Special lectures, latter part of second half-year

DYNAMICS OF MOTORS (Mechanical Engineering 20 and 21)—2 hours, second half-year

RAILWAY MOTIVE POWER AND MACHINERY (Mechanical Engineering 26)—3 hours, first part of first half-year; (Civil Engineering 9)—3 hours, second part of first half-year, and second half-year

HYDRAULICS (Civil Engineering 12)—2 hours, first half-year

MASONRY STRUCTURES (Civil Engineering 4)—1 hour

STEAM-ENGINE DESIGN (Mechanical Engineering 28)—2 hours

SHOP AND FACTORY ORGANIZATION AND MANAGEMENT (Mechanical Engineering 29)—1 hour, second half-year

MINE PLANT (Mining 7)—3 hours, first half-year ; 2 hours, second half-year

ELECTRIC POWER (Electrical Engineering 2)—3 hours, first half-year

ELECTRIC RAILWAY (Electrical Engineering 8)—2 hours, second half-year

HYDRAULIC MOTORS LABORATORY (Mechanical Engineering 25)—second half-year

HEAT AND STEAM ENGINEERING LABORATORY (Mechanical Engineering 24)—In connection with thesis work

LOCOMOTIVE LABORATORY (Mechanical Engineering 26)

DRAWING (Mechanical Engineering 22 and 28)

THESIS, original investigation or professional problem on a subject approved by the Professor of Mechanical Engineering

See pages 65–206 for departmental statements with details of the above courses

ELECTRICAL ALTERNATIVE, OR COURSE B

NOTE—The first three years are the same for all Alternatives

Fourth Year

THERMODYNAMICS (Mechanics 4)—3 hours, second half-year

HEAT AND ITS APPLICATIONS (Mechanical Engineering 19)—3 hours, and laboratory practice, first half-year

PUMPS, PUMPING, AND SPECIAL ENGINES (Mechanical Engineering 27)—Special lectures, latter part of second half-year

DYNAMICS OF MOTORS (Mechanical Engineering 20 and 21)—2 hours, second half-year

RAILWAY MOTIVE POWER AND MACHINERY (Mechanical Engineering 26)—3 hours, first part of first half-year; (Civil Engineering 9)—3 hours, latter part of first half-year, and second half-year

STEAM-ENGINE DESIGN (Mechanical Engineering 28)—2 hours

SHOP AND FACTORY ORGANIZATION AND MANAGEMENT (Mechanical Engineering 29)—1 hour

HYDRAULICS (Civil Engineering 12)—2 hours, first half-year

ELECTRIC POWER (Electrical Engineering 2)—3 hours, first half-year

ELECTRICAL ENGINEERING (Electrical Engineering 3 and 4)—1 hour, first half-year, and 3 hours, second half-year

ELECTRICAL ENGINEERING (Electrical Engineering 6)—1 hour

THEORY OF DYNAMO AND MOTOR (Mechanics 6 and 7)—3 hours

ELECTRIC RAILWAY (Electrical Engineering 8)—2 hours, second half-year

HYDRAULIC MOTORS LABORATORY (Mechanical Engineering 25)—second half-year

HEAT AND STEAM ENGINEERING LABORATORY (Mechanical Engineering 24)—In connection with thesis work

ELECTRICAL ENGINEERING LABORATORY (Mechanical Engineering 11 and 12)—3 afternoons

DRAWING (Mechanical Engineering 28)

THESIS, original investigation or professional problem on a subject approved by the Professor of Mechanical Engineering.

See pages 65–206 for departmental statements with details of the above courses

MINING ALTERNATIVE, OR COURSE C

NOTE—The first three years are the same for all Alternatives

Fourth Year

THERMODYNAMICS (Mechanics 4)—3 hours, second half-year

HEAT AND ITS APPLICATIONS (Mechanical Engineering 19)—3 hours, and laboratory practice, first half-year

DYNAMICS OF MOTORS (Mechanical Engineering 20 and 21)—2 hours, second half-year

PUMPS, PUMPING, AND SPECIAL ENGINES (Mechanical Engineering 27)—Special lectures, latter part of second half-year

SHOP AND FACTORY ORGANIZATION AND MANAGEMENT (Mechanical Engineering 29)—1 hour

HYDRAULICS (Civil Engineering 12)—2 hours, first half-year

EXCAVATION AND TUNNELLING (Mining 1)—3 hours, first half-year

BORING AND SHAFT SINKING (Mining 2)—2 hours, second half-year

MINE ENGINEERING (Mining 6)—2 hours, first half-year, and 1 hour, second half-year

ORE-DRESSING (Mining 4)—2 hours

ORE-DRESSING LABORATORY (Mining 5)—Afternoons for 3 weeks, second half-year

MINE PLANT (Mining 7)—3 hours, first half-year, and 2 hours, second half-year

HEAT AND STEAM ENGINEERING LABORATORY (Mechanical Engineering 24)—If required in connection with thesis work, first half-year

ELECTRIC POWER (Electrical Engineering 2)—3 hours, first half-year

ELECTRIC RAILWAY (Electrical Engineering 8)—2 hours, second half-year

DRAWING, if required in connection with thesis work

THESIS, original investigation or professional problem on a subject approved by the Professor of Mechanical Engineering

See pages 65–206 for departmental statements with details of the above courses

LOCOMOTIVE ENGINEERING ALTERNATIVE, OR COURSE F

NOTE—The first three years are the same for all Alternatives

Fourth Year

First Half-year

HEAT AND ITS APPLICATIONS (Mechanical Engineering 19) — 3 hours

SHOP AND FACTORY ORGANIZATION (Mechanical Engineering 29) — 1 hour

ELECTRICAL DISTRIBUTION (Electrical Engineering 23)—2 hours

ELECTRIC POWER (Electrical Engineering 2)—2 hours

LOCOMOTIVE ENGINEERING AND DESIGN (Mechanical Engineering 43)—3 hours

LOCOMOTIVE TESTING LABORATORY (Mechanical Engineering 46)—Afternoon work

HEAT AND STEAM ENGINEERING LABORATORY (Mechanical Engineering 24) —Afternoon work

ENGINEERING DESIGN AND DRAWING (Mechanical Engineering 22 and 28) —1 hour, and afternoon work

Second Half-year

THERMODYNAMICS (Mechanics 4)—3 hours

DYNAMICS OF MOTORS (Mechanical Engineering 20 and 21)—2 hours

SHOP AND FACTORY ORGANIZATION (Mechanical Engineering 29)—1 hour

ELECTRIC RAILWAY (Electrical Engineering 8)—2 hours

MANAGEMENT OF ELECTRICAL PLANTS (Electrical Engineering 22)—2 hours

LOCOMOTIVE ACCESSORIES, SPECIFICATIONS, AND HISTORY. TRACTION ENGINES (Mechanical Engineering 44 to 48)—3 hours

LOCOMOTIVE TESTING LABORATORY (Mechanical Engineering 46)—Afternoon hours

HEAT AND STEAM ENGINEERING LABORATORY (Mechanical Engineering 24) —Afternoon hours

ENGINEERING DESIGN AND DRAWING (Mechanical Engineering 22 and 28) —1 hour, and afternoon work

THESIS, on some subject relating to Railway Motive Power

See pages 65–206 for departmental statements with details of the above courses

COURSE IN ARCHITECTURE

First Year

ARCHITECTURAL ENGINEERING (Architecture 14a)—3 hours
ELEMENTS OF ARCHITECTURE (Architecture 8)—1 hour
ANCIENT ARCHITECTURAL HISTORY (Architecture 1)—3 hours
HISTORY OF ANCIENT ORNAMENT (Architecture 5)—1 hour
ARCHÆOLOGY, FRENCH (Architecture 16)—2 hours
ELEMENTARY DESIGN (Architecture 15)—1 hour
PROJECTIONS, SHADES, AND SHADOWS (Architecture 10)—2 hours, first half-year
ARCHITECTURAL ESSAYS (Architecture 17)—1 hour
DRAWING, ARCHITECTURAL AND FREEHAND (Architecture 9a and 9b)—17 hours
HISTORICAL DRAWING (Architecture 9c)—2 hours
SURVEYING (Civil Engineering 1) *optional*—2 hours, second half-year

Summer Vacation

SURVEYING (Civil Engineering 15) *optional*—6 weeks field-work
SUMMER WORK—Historical Memoir; sketches and drawings

Second Year

PERSPECTIVE (Architecture 11)—12 lectures
ARCHITECTURAL ENGINEERING (Architecture 14b)—3 hours
MODERN ARCHITECTURAL HISTORY (Architecture 3)—2 hours
MEDIÆVAL ARCHITECTURAL HISTORY (Architecture 2)—2 hours, first half-year; 2 hours, and 12 hours research, second half-year
[Given in 1900–01, alternates with Architecture 3]
ARCHÆOLOGY, GERMAN (Architecture 16)—2 hours
HISTORY OF MEDIÆVAL ORNAMENT (Architecture 6)—1 hour
[Given in 1900–01, alternates with Architecture 7]
HISTORY OF MODERN ORNAMENT (Architecture 7)—1 hour
[Given in 1900–01, alternates with Architecture 6]
THEORY OF ARCHITECTURE (Architecture 4)—1 hour
DESIGN, PROBLEMS (Architecture 15)—15 hours, first half-year
HISTORICAL DESIGN (Architecture 3 and 15)—3 hours, second half-year
ARCHITECTURAL ESSAYS (Architecture 17)—1 hour
DRAWING, FREEHAND (Architecture 9)—7 hours

Summer Vacation

SURVEYING (Civil Engineering 16) *optional*—6 weeks field-work
SUMMER WORK—Historical Memoir, sketches and drawings

See pages 65–206 for departmental statements with details of the above courses

COURSE IN ARCHITECTURE

Third Year

ARCHITECTURAL ENGINEERING (Architecture 14c)—6 hours

MODERN ARCHITECTURAL HISTORY (Architecture 3)—2 hours

[Given in 1900–01, alternates with Architecture 2]

MEDIÆVAL ARCHITECTURAL HISTORY (Architecture 2)—2 hours, first half-year

[Given in 1900–01, alternates with Architecture 3]

HISTORY OF MEDIÆVAL ORNAMENT (Architecture 6)—1 hour

[Given in 1900–01, alternates with Architecture 7]

HISTORY OF MODERN ORNAMENT (Architecture 7)—1 hour

THEORY OF ARCHITECTURE (Architecture 4)—1 hour

SPECIFICATIONS (Architecture 13a)—2 hours

BUILDING MATERIALS (Architecture 13b)—2 hours

DESIGNS, PROBLEMS (Architecture 15)—15 hours, first half-year

HISTORICAL DESIGN (Architecture 3 and 15)—3 hours, second half-year

ARCHITECTURAL ESSAYS (Architecture 17)—1 hour

DRAWING, FREEHAND (Architecture 9, 18)—2 hours

Summer Vacation

SUMMER WORK—Memoir on some subject assigned by the Professor of Architecture; sketches and drawings

Fourth Year

ADVANCED ARCHITECTURAL HISTORY (Architecture 18)—2 hours

ADVANCED ARCHITECTURAL DESIGN (Architecture 19)—25 hours

ADVANCED ARCHITECTURAL ENGINEERING AND PRACTICE (Architecture 20 and 21)—15 hours, and 15 hours practice

DESCRIPTIVE GEOMETRY (Architecture 12)—2 hours

DRAWING, FIGURE, ORNAMENT, AND WATER COLORS (Architecture 9)—4 hours

THESIS, original design and discussion

See pages 65–206 for departmental statements with details of the above courses

REGISTER OF STUDENTS

FOURTH YEAR CLASS

MINING ENGINEERS

Clark, Carle Dawes	Minneapolis, Minn.
Colman, Jerome M	(Mhtn) New York City
Cornell, Russell Todd	(Mhtn) New York City
Erdal, Oscar Wilson	Johannesburg, South Africa
Goode, Edmund Lowry	(Bklyn) New York City
Goodman, Maurice, B.S., *N. Y. City College*	(Mhtn) New York City
Lidgerwood, John Hedges, Jr., Mech.E., *Stevens Institute*	Morristown, N. J.
Mills, Henry Jayne	(Bklyn) New York City
Parker, James H., E.M., *State School of Mines*, *Golden*, *Colorado*,	White Oaks, New Mexico
Queneau, Augustin Leon Jean, B.S., *University of France*,	(Mhtn) New York City
Roberts, Albert, B.S., *Amherst*	(Mhtn) New York City
Rubidge, Frederick Taber, B.S., *University of Colorado*	Denver, Colo.
Schwerin, Clarence Maurice	(Mhtn) New York City
Smith, Edward Percy, Mech.E., *Cornell*	(Bklyn) New York City
Stanley, Robert Crooks, Mech.E., *Stevens Institute*	Montclair. N. J.
Stewart, John Burgoyne	(Mhtn) New York City
Thayer, Reginald Holden	Yonkers, N. Y.
Yung, Morrison Brown, Ph.B., *Yale*	(Mhtn) New York City

CIVIL ENGINEERS

Bos, George Albert	(Mhtn) New York City
Brodie, Orrin Lawrence	(R) New York City
Buckholz, Gustavus William	(Mhtn) New York City
Burt, Harry Radcliffe	(Mhtn) New York City
Dougherty, Richard Erwin	(Mhtn) New York City
Du Bois, William Chandler	Bayonne, N. J.
Hochlerner, Tobias	(Mhtn) New York City
Hudson, Darwin Shaw, A.B., *Columbia*	(Q) New York City
Kempner, Milton, A.B., *N. Y. City College*	(Mhtn) New York City
Ludlam, William Kennedy	(Mhtn) New York City
Mapes, Charles Maynard	(Mhtn) New York City
Morrison, Charles Edward	(Mhtn) New York City
Rae, James Giles	(Mhtn) New York City
Serrano, Vicente	(Mhtn) New York City

Van Deerlin, Reginald Wellesley....................(Mhtn) New York City
Wolff, John Benjamin...............................(Mhtn) New York City
Woodward, Robert Simpson, Jr.......................(Mhtn) New York City
Zipser, Morris.....................................(Mhtn) New York City

ELECTRICAL ENGINEERS

Bayne, Howard......................................(Mhtn) New York City
Brandon, Vivian Isaac..............................(Mhtn) New York City
Briesen, Harold V..................................Weehawken, N. J.
Brown, Caxton......................................(Mhtn) New York City
Dixon, James.......................................(Q) New York City
Doud, Charles Hamilton, A.B., *Yale*...............(Mhtn) New York City
Focardi, Pier-Luigi, B.S., *Cooper Union*..........(Mhtn) New York City
Goerwitz, William...................................(Mhtn) New York City
Havill, Owen A., A.B., *St. Francis Xavier*........Jersey City, N. J.
Lawrence, Augustine Neil...........................(Q) New York City
Levine, Albert Julius..............................(Mhtn) New York City
Morgans, Frank Davis, B.S., *Adelphi*..............(Bklyn) New York City
New, Samuel Sidney.................................(Mhtn) New York City
O'Shea, John Edmund................................(Mhtn) New York City
Parker, Lindsay Reed...............................(Bklyn) New York City
Parsons, Isaac Dayton..............................(Mhtn) New York City
Rionda, José Bernardo..............................(Mhtn) New York City
Sage, Darrow.......................................(Mhtn) New York City
Scharf, Henry Warren...............................Middletown, N. Y.
Stromeyer, William Theodore........................(Mhtn) New York City
ter Meer, Henry Charles............................Hoboken, N. J.
Thurston, Louis Stewart............................Nutley, N. J.
von Schrenk, Arnold................................(Mhtn) New York City

MECHANICAL ENGINEERS

Alsberg, Julius, A.B., *Columbia*..................(Mhtn) New York City
Bates, Louis William, E.E., *Columbia*.............(Bklyn) New York City
Borden, William Henry, Jr..........................Goldsboro, N. C.
Britton, Henry Berry...............................(Mhtn) New York City
Clark, Walter Lemuel...............................(Mhtn) New York City
Colwell, Lino Montalvo, B.S., *N. Y. City College*.....(Mhtn) New York City
Cregier, Abbott Morgan.............................Mt. Vernon, N. Y.
Gillet, Louis Allston, Ph.B., *Yale*...............(Mhtn) New York City
Hopkins, George Gallagher, Jr., A.B., *Columbia*......(Bklyn) New York City
Immediato, Gerardo, C.E., *Columbia*...............Montclair, N. J.
Kretz, Walter Coluzzi, Ph.D., *Columbia*...........(Mhtn) New York City
Meehan, John Augustine.............................(Mhtn) New York City
Myers, David Moffat................................(Mhtn) New York City
Read, Clark Potter.................................(Mhtn) New York City
Robinson, Arthur...................................(Mhtn) New York City
Van Horne, John Reginald...........................Jersey City, N. J.
Wilson, Lester Godfrey.............................(Mhtn) New York City

METALLURGIST

Meeks, Reginald	(Mhtn) New York City

CHEMISTS

Bernheim, George Benjamin	(Mhtn) New York City
Falk, Kaufman George	(Mhtn) New York City
Hildreth, Thomas Flagler	Lockport, N. Y.
Hubbard, George Canning	(R) New York City
Lindsay, William Godson	(Mhtn) New York City
Moffatt, Miles Rees, A.B., *Columbia*	Mamaroneck, N. Y.
Page, Robert Weise	(Bklyn) New York City
Palmenberg, Oscar Walter	(Mhtn) New York City
Pickhardt, William Paul, B.S., *Gymnase Cantonale de Neuchatel, Switzerland,*	(Mhtn) New York City

ARCHITECTS

Adenaw, Arthur Paul Frederick	(Mhtn) New York City
Baer, Herbert Mark	(Mhtn) New York City
Colt, Morgan	(Mhtn) New York City
Dominick, William Francis, A.B., *Yale*	(Mhtn) New York City
Harmon, Arthur Loomis	Chicago, Ill.
Hewitt, Edward Shepard	(Bklyn) New York City
Hill, Lawrence	(Mhtn) New York City
Kaiser, Charles Sumner	Greenwich, Conn.
Keppel, David	(Mhtn) New York City
Knight, Harold Bartlett	(Mhtn) New York City
Loney, Frederick Roosevelt	Skaneateles, N. Y.
Ray, David Heydorn, A.B., *N. Y. City College*	(Mhtn) New York City
Smith, Lucian Easter	(Mhtn) New York City

FOURTH YEAR CLASS

Mining Engineers	18
Civil "	18
Electrical "	23
Mechanical "	17
Metallurgist	1
Chemists	9
Architects	13
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THIRD YEAR CLASS

MINING ENGINEERS

Adams, Mason Tyler, A.B., *Yale*	Amherst, Mass.
Armstead, Daniel Macpherson	(Mhtn) New York City
Armstrong, Homer	Great Falls, Mont.

Ashley, Ralph Earl	Denver, Colo.
Bateson, Charles Edward Wagstaffe	(Mhtn) New York City
Bishop, Roy Nelson	Loomis, Wash.
Cromwell, Robert Hewitt	(Bklyn) New York City
Emerson, Edward Hopkins, A.B., *Amherst*	Amherst, Mass.
Everts, Charles P.	Boston, Mass.
Farish, George Edwin	Denver, Colo.
Feust, Arthur	(Mhtn) New York City
Higgins, James Edward	Butte, Mont.
Lunt, Horace Fletcher, A.B., *Harvard*	Colorado Springs, Colo.
Maeulen, Frederick	Evansville, Ind.
Merry, Frederick Charles	(Bklyn) New York City
Morley, Frederick Hitchcock, A.B., *Yale*	Colorado Springs, Colo.
Pelton, Edward Franklin, B.S., *Princeton*	(Mhtn) New York City
Read, Thomas Thornton	Coltsneck, N. J.
Schimper, Frans Johannis Von Maltitz	Bresler's Flat, South Africa
Shreve, John Nelson	(Mhtn) New York City
Smyth, David William	(Mhtn) New York City
Stewart, Howard Race	Launceston, Australia
Ungrich, Martin Jacob	(Mhtn) New York City
Watson, Charles Edward	Cleveland, O.
Whyte, William de Burgh	London, England
Wilson, Charles Henry	Mt. Vernon, N. Y.

CIVIL ENGINEERS

Bleich, Samuel David, B.S., *N. Y. City College*	(Mhtn) New York City
Close, Joseph Atwater	Stamford, Conn.
Coykendall, Frank	Rondout, N. Y.
Fredericks, Anton	(Mhtn) New York City
Gaston, Melchor E., A.B., *University of Havana*	Cardenas, Cuba
Hirschthal, Meyer, B.S., *N. Y. City College*	(Mhtn) New York City
Irvine, Frederick Brice	(Mhtn) New York City
Lavery, Daniel O'Connell	(Mhtn) New York City
MacLean, Allan, A.B., *Yale*	Litchfield, Conn.
Maisenholder, Edward Frederick	(Mhtn) New York City
Murphy, William Aloysius	(Mhtn) New York City
Prout, Glover Perin	Nutley, N. J.
Roell, Antone Joseph	(Mhtn) New York City
Tombo, Carl, B.S., *N. Y. City College*	(Mhtn) New York City
Wyckoff, Charles Rapelyea, Jr., B.S., *Brooklyn Polytechnic Institute*,	(Bklyn) New York City

ELECTRICAL ENGINEERS

Brown, Stanton	(Mhtn) New York City
Cowing, Percy Foote	(Mhtn) New York City
Daniels, Harold Platt	(Mhtn) New York City

Diamant, Sidney	(Mhtn) New York City
Freund, Harry Paul	(Mhtn) New York City
Goepel, Carl Paul	(Mhtn) New York City
Golden, Percy Norris	Elizabeth, N. J.
Grant, Oliver Remick	(Mhtn) New York City
Gray, Clifford	(Mhtn) New York City
Haviland, Henry Field	(Mhtn) New York City
Hoguet, Ramsey Charles	(Mhtn) New York City
Hyman, Wallace Munroe	(Mhtn) New York City
Knowlton, Frederic Kirk	Rochester, N. Y.
Menges, Philip Charles, B.S., *N. Y. City College*	(Mhtn) New York City
Miller, George Alfred, Jr.	Montclair, N. J.
O'Donovan, Leo Jeremiah, A.B., *St. John's College*	(Mhtn) New York City
Powers, Walter Hayward	Rye, N. Y.
Rosenblatt, Girard B.	(Mhtn) New York City
Rosenthal, Leon Walter	(Mhtn) New York City
Sloane, Thomas O'Conor, Jr.	South Orange, N. J.
Solomon, Isaac Rosh	(Mhtn) New York City
Titus, Samuel Howard	(Bklyn) New York City
Wallace, William Murray	(Mhtn) New York City
Warren, William Appleton	(Mhtn) New York City
Welcke, Celestin John	(Mhtn) New York City
White, Francis Joseph	(Bklyn) New York City
Zucker, Arthur A.	(Mhtn) New York City

Mechanical Engineers

Clark, Benjamin Franklin, Jr.	Conway, N. H.
Clarke, Henry Joseph Bowie	(Mhtn) New York City
Clarke, Robert Walter Maxwell	(Mhtn) New York City
Crissey, Clarence Philip	(Mhtn) New York City
Hatch, Walter Percy, Jr.	(Mhtn) New York City
Heyer, Bradford Willard	(Mhtn) New York City
Marston, Charles Stephen	(Mhtn) New York City
Matty, Leo Joseph	Denver, Colo.
Meissner, William Christen	(Mhtn) New York City
Oakley, Walton Livingston	(Mhtn) New York City
Obert, Casin Watson	(Mhtn) New York City
Reis, Leslie Robert	(Mhtn) New York City
Richmond, Julian Pierre William	(Br) New York City
Rionda, Leandro José	(Mhtn) New York City
Ripley, Julien Ashton, A.B., *Yale*	(Mhtn) New York City
Ross, Samuel McNutt	Altoona, Pa.
Schlosser, Philip	(Mhtn) New York City
Schmidt, Carl Gustav Adolph, Jr.	(Mhtn) New York City
Swart, Clifford Townsend	Mt. Vernon, N. Y.
Ver Planck, William Everett	Fishkill-on-Hudson, N. Y.
Waters, Rossiter Lester	(Mhtn) New York City

Williamson, Alfred	(Mhtn) New York City
Wilner, Elias R.	(Mhtn) New York City
Wittemann, Rudolph Wendelin	(Bklyn) New York City
Wood, Dennistoun, Jr	Irvington-on-Hudson, N. Y.

METALLURGIST

Pattison, Myron Adams	Denver, Colo.

CHEMISTS

Breneman, Harry Campbell	Cincinnati, O.
Danziger, Joseph Louis	(Mhtn) New York City
Dickie, Albert Ernest	(Bklyn) New York City
Kanolt, Clarence Whitney	(Mhtn) New York City
Kohnstamm, Lothair S.	(Mhtn) New York City
Le Prince, Louis Adolphe Whitley	(Mhtn) New York City
Minsky, Abram Harold	(Mhtn) New York City

ARCHITECTS

Bradley, James Aikin	Poughkeepsie, N. Y.
Brown, Elliott Lockwood	(Mhtn) New York City
Bussmann, Arthur Henry	(Bklyn) New York City
Crosby, Henry Barrett, Jr	Paterson, N. J.
Fowler, Lawrence Hall, A.B., *Johns Hopkins*	Baltimore, Md.
Godwin, Herbert	(Mhtn) New York City
Hanemann, John Theodore	(Mhtn) New York City
Jacoby, George Washington	(Mhtn) New York City
Lane, Clarence James	Mt. Vernon, N. Y.
Rogers, William Jordan	Newburgh, N. Y.
Schoen, Eugene	(Mhtn) New York City
Seifert, Karl Francis Joseph	(Mhtn) New York City
Upton, Harborough Desmond	(Mhtn) New York City
Warren, Frederic Bryant	(Mhtn) New York City
Warren, William Tilman, B.S., *Alabama Polytechnic Institute*,	Montgomery, Ala.
Wilson, Fred Fielding	Bozeman, Mont.
Wilson, Robert Paddock	Middletown, Conn.

THIRD YEAR CLASS

Mining Engineers	27
Civil "	15
Electrical "	27
Mechanical "	25
Metallurgist	1
Chemists	7
Architects	17
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SECOND YEAR CLASS

MINING ENGINEERS

Baldwin, William Sage	Nyack, N. Y.
Bauchelle, John Fletcher	Montclair, N. J.
Berrien, Chauncey Leonard	(Mhtn) New York City
Brady, Leon Hobart	Kansas City, Mo.
Cabot, George Dodge	(Mhtn) New York City
Constant, Charles Louis, Jr	(Mhtn) New York City
Cutter, George Pratt	(Mhtn) New York City
De Witt, George Gosman	(Mhtn) New York City
Fitzpatrick, Joseph Philip	Arrochar, N. Y.
Gunther, Charles Godfrey	(Bklyn) New York City
Hall, H. R., A.B., *Eureka College*	Athens, Ill.
Harwood, Paul Henry	No. Ontario, Cal.
Hendrickson, William Harold	Scarsdale, N. Y.
Holman, Phelps Rounds, C.E., *Pennsylvania Military College*,	Salt Lake City, Utah
Holt, Charles	(Mhtn) New York City
Jacobsen, Harry Barling	(Mhtn) New York City
Landers, William Herbert	San Leandro, Cal.
Law, Charles Taylor	(Mhtn) New York City
Macdougall, Charles Willis	Elizabeth, N. J.
Miller, William Leggett	Floral Park, N. Y.
Mohr, Frederick John	(Mhtn) New York City
Morrell, Francis Adam, A.B., *Creighton University*	Omaha, Neb.
Ostrom, Charles Warren	Jersey City, N. J.
Pelton, Roger Trowbridge	Poughkeepsie, N. Y.
Pembroke, Earl Richard	Salt Lake City, Utah
Rigby, Seth Freeman, B.S., *University of Utah*	Salt Lake City, Utah
Rodriguez, Franco	Mazapil, Mexico
Schmidt, Frederick Sommer, B.S., *N. Y. City College*	(Mhtn) New York City
Shaw, Frederick S.	Kansas City, Mo.
Truax, Sewall	Walla Walla, Wash.
Wichman, Frank Maxwell	Montclair, N. J.

CIVIL ENGINEERS

Austin, Archie S.	Denver, Colo.
Bernstein, George William	(Mhtn) New York City
Beyer, Albin H., Jr	(Bklyn) New York City
Busse, Frank August	Cincinnati, O.
Cooper, Everitt Morton	(Mhtn) New York City
Cornell, Irwin Hewlett	(Mhtn) New York City
Ford, Walter Hoffmann	(Mhtn) New York City
Holden, Charles Alexander	(Mhtn) New York City
Keithley, Roland Hill	Shackleford, Mo.
Levitt, Boris Abraham	(Mhtn) New York City

Loder, Elwood Hill	Port Chester, N. Y.
McDowell, Walter St. Leger	Middletown, Conn.
Mitchell, Roger Sherman	(Mhtn) New York City
Murphy, James Leo	(Mhtn) New York City
Nicholson, John M., A.B., *St. Francis Xavier*	(Mhtn) New York City
O'Dwyer, Frank Xavier	(Mhtn) New York City
Rappold, Gustave Adolph	(Bklyn) New York City
Sayers, Edward Lawrence, A.B., *St. Francis Xavier*	(Mhtn) New York City
Smith, Elbert Osborne, Jr	(Mhtn) New York City
Wolff, Arthur Moses	(Mhtn) New York City
Worm, Oscar Rudolph Waldimar, Jr., B.S., *N. Y. City College*,	(Mhtn) New York City
Wormser, Moritz, A.B., *Colorado College; Columbia*	(Mhtn) New York City
Yates, William Henry	(Mhtn) New York City
Zaslaw, Myer, B.S., *University of Pennsylvania*	(Mhtn) New York City

Electrical Engineers

Abreu, Leopoldo G., A.B., *Havana*	(Mhtn) New York City
Bradley, Alonzo Brackett	(Mhtn) New York City
Clark, Frederic B	(Mhtn) New York City
Coggeshall, Allan	South Orange, N. J.
Couzens, John Clark	Yonkers, N. Y.
Crocker, George Augustus, Jr	(Mhtn) New York City
de Forest, Edward Layton	(Mhtn) New York City
Evans, William Augustus Darling	(Mhtn) New York City
Everett, Samuel Harrison, Jr	(Bklyn) New York City
Grevatt, Frank Frommel	Hoboken, N. J.
Griffith, Percy Le Roy	(Mhtn) New York City
Hayes, Edward Francis	(Mhtn) New York City
Heck, Charles M., A.B., *Wake Forest College*	Raleigh, N. C.
Leavitt, Sheldon, Jr	(Mhtn) New York City
Lewis, Harold G	Lincoln, Neb.
Lillard, Ogden Whittier Hall	(Mhtn) New York City
McAnerney, Joseph Augustine	(Mhtn) New York City
Mount, Thomas	(Mhtn) New York City
Reid, Eugene Joseph	(Mhtn) New York City
Simons, Arthur Garretson	(R) New York City
Smith, Raymond Westhorpe	(Mhtn) New York City
Wharton, Percival Charles	(Mhtn) New York City

Mechanical Engineers

Ager, John Winfrid	(Bklyn) New York City
Biglow, Lem Cavalli	(Mhtn) New York City
Curry, Malcolm	(R) New York City
Dittenhoefer, Lester Franklin	(Mhtn) New York City
Faber, John Pelham	(Mhtn) New York City

Frank, Eugene	(Mhtn) New York City
Glasby, Herbert Stites	Newark, N. J.
Goodrich, John Serre	(Mhtn) New York City
Henes, Louis G.	(Mhtn) New York City
Hull, Arthur Burr	(Mhtn) New York City
Jacoby, Henry Edward, B.S., *N. Y. City College*	(Mhtn) New York City
Kayser, William Dettow	(Mhtn) New York City
Martin, Franklin	West Orange, N. J.
Meehan, Vincent Gregory	(Mhtn) New York City
Moën, Leclanché	(Mhtn) New York City
Osborne, Harold Skene	(Mhtn) New York City
Otis, Sidney	Yonkers, N. Y.
Pigott, Stephen Joseph	Cornwall, N. Y.
Pond, Charles Miles	New Rochelle, N. Y.
Schmidt, Henry Frederick	(Mhtn) New York City
Smallwood, Julian Chase	(Mhtn) New York City
Stone, Mason Albert, Jr., A.B., *Yale*	(Mhtn) New York City
Terry, Raphael	(Mhtn) New York City
Updike, David Montgomery	(Mhtn) New York City
Wood, William	Islip, N. Y.

METALLURGISTS

Guyer, Raymond	Lima, Peru, S. A.
Langmuir, Irving	(Mhtn) New York City

CHEMISTS

Abraham, Herbert	(Mhtn) New York City
Buckmaster, Frederic Conant	Yonkers, N. Y.
Cruser, Frederick Van Dyke	(Bklyn) New York City
Dempwolf, Charles Henry, Jr	York, Pa.
Dorman, Allison Rice	Springfield, Mass.
Frank, Henry	(Bklyn) New York City
Gulbrandsen, Sverre	(Bklyn) New York City
Haines, Harold Woodbury	(Mhtn) New York City
Kenney, Frederick James	(Mhtn) New York City
Lindeman, Maurice	(Mhtn) New York City
McLaughlin, Cyril Berchman, A.B., *St. Francis Xavier*	(Mhtn) New York City
Mersereau, Gail	Cayuga, N. Y.
Ruskay, Burrill	(Mhtn) New York City
Thompson, John Fairfield	(Bklyn) New York City
Tibbals, Austin	Marlborough, N. Y.
Williamson, George Norman, Jr	(Mhtn) New York City

ARCHITECTS

Beers, William Hermon	Mamaroneck, N. Y.
Bishop, Ogden Mills	(Mhtn) New York City
Campbell, Shiras, A.B., *Yale*	Elizabeth, N. J.

Frohne, Henry William	(Br) New York City
Greene, Philip Llewellyn	(Bklyn) New York City
Ludlow, Thomas Ludlow	(Mhtn) New York City
Palliser, Bruce Sylvester	Dobbs Ferry, N. Y.
Smith, Clifford Le Roy	(Mhtn) New York City
Stevens, Thomas Shepherd	(Bklyn) New York City
Wynkoop, John	(Mhtn) New York City

SECOND YEAR CLASS

Mining Engineers	31
Civil “	24
Electrical “	22
Mechanical “	25
Metallurgists	2
Chemists	16
Architects	10
	130

FIRST YEAR CLASS

MINING ENGINEERS

Agnew, James Carson	Duluth, Minn.
Aicher, Frank Albert	Denver, Col.
Argall, George Oates	Denver, Col.
Arkell, James, Jr	(Mhtn) New York City
Bamberger, Sidney M	Salt Lake City, Utah
Burbidge, Theodore Albert	Charleston, S. C.
Camp, Albert Roy	(Mhtn) New York City
Campbell, Ralph	(Mhtn) New York City
Canalizo, Louis	(Mhtn) New York City
Cruger, Jauncey	(Bklyn) New York City
Demarest, W. Gustavus	(Mhtn) New York City
Dufourcq, Raoul Geer	(Mhtn) New York City
Fies, Milton Henry	Birmingham, Ala.
Foote, Francis Seeley, Jr	Montclair, N. J.
Fraser, Alexander John	(Mhtn) New York City
Goodwin, Victor	(Mhtn) New York City
Grandin, Egbert Bradish	(Mhtn) New York City
Hatch, Hamlin Brooks	Yonkers, N. Y.
Haven, Richard	Kansas City, Kan.
Hillhouse, John Ten Eyck	Yonkers, N. Y.
Mayer, Lucius	(Mhtn) New York City
Nicoll, Gilbert Lee	(Mhtn) New York City
Norsworthy, Howard Ratcliffe	(Mhtn) New York City
Pickering, John Clark	(Mhtn) New York City
Rothschild, Clarence George	(Mhtn) New York City
Sergeant, Henry DeForest	Summit, N. J.

Sherron, George Austin	Rowayton, Conn.
Sill, Frank H	Colorado Springs, Colo.
Singer, Charles Edward	Oneida, N. Y.
Stow, Sherman Hubbard	La Patera, Cal.
Taylor, Nelson Salathiel Mills	Buffalo, N. Y.
Tracy, William Evarts, A.B., *Yale*	Plainfield, N. J.
Wheeler, Bleecker Langdon	(Mhtn) New York City
Yñigo, Alejandro Louis	Guaymas, Mexico

Civil Engineers

Benedict, Farrand Northrop	(Mhtn) New York City
Benjamin, Herbert Isidor	(Mhtn) New York City
Carleton, Robert Andrew Wood	Edgewater, N. J.
Church, Elihu Cunyngham	(Mhtn) New York City
Coelos, Jules Auguste	(Mhtn) New York City
Hawkesworth, John	(Mhtn) New York City
Heller, Clarence	(Mhtn) New York City
Huerstel, Maurice Gustave	(Mhtn) New York City
Miles, George Frederic	(Mhtn) New York City
Minor, Henry Rossiter	(Mhtn) New York City
Morales, Luis Pedroso, A.B., *University of Havana*	(Mhtn) New York City
Perlman, William	(Mhtn) New York City
Rogers, Augustus	(Mhtn) New York City
Schock, Delbert Rolland	(Mhtn) New York City
Stein, Charles Richard	(Mhtn) New York City
Steindler, Henry, A.B., *N. Y. City College*	(Mhtn) New York City
Stoutenburgh, Charles Hall	(Mhtn) New York City
Tanenbaum, Samuel Alexander	(Mhtn) New York City
Tetley, Thomas Robinson	(Mhtn) New York City
Tyler, William Rogers	(Mhtn) New York City
Wolheim, Louis Robert	(Mhtn) New York City

Electrical Engineers

Abendroth, William Philip	(Mhtn) New York City
Acker, Albert J	(Mhtn) New York City
Aparicio, Edward R	Guatemala, C. A.
Barnert, Meyer	Paterson, N. J.
Chandler, Henry King	(Mhtn) New York City
Daly, Wilfrid Augustin	Yonkers, N. Y.
Day, Halisbury Marcus	(Mhtn) New York City
de Cárdenas, Julio, A.B., *Havana University*	Havana, Cuba
Demeritt, Harold Savery	New Canaan, Conn.
Eakin, Alexander	Englewood, N. J.
Emanuel, Alexander, A.B., *Robert College, Constantinople,*	Constantinople, Turkey
Guise, Anselm Verner Lee	(Mhtn) New York City
Haight, Louis Henry	Amityville, N. Y.

Higbie, Henry Harold	(Mhtn) New York City
Hitchcock, Milton Lloyd	(Mhtn) New York City
Hochsprung, George W	(Bklyn) New York City
Hudson, Hendrik	Alexandria Bay, N. Y.
Jarcho, Isaiah	(Mhtn) New York City
Kebler, Leonard	(Mhtn) New York City
Lewine, Raymond Sakolski	(Mhtn) New York City
Lewinson, Leonard Julian	(Mhtn) New York City
McKenna, William Aloysis	(Mhtn) New York City
Menges, Charles Peter	(Mhtn) New York City
Pinckney, Clifford Morgan	New Rochelle, N. Y.
Rodger, Clarence Andrew	Hammond, N. Y.
Sanger, Charles	(Mhtn) New York City
Schaus, Carl Joseph	(R) New York City
Schneider, Carl Albert	Perth Amboy, N. J.
Schueler, Preuss Adelbert	(Mhtn) New York City
Schur, Carl, Jr	(Mhtn) New York City
Seringhaus, Frederick William	(Mhtn) New York City
Stebbins, Rowland	(Mhtn) New York City
Totten, William Wallace	Nutley, N. J.
Van Wagenen, Edward	(Mhtn) New York City

MECHANICAL ENGINEERS

Alexander, Ludwell Brooke	(Mhtn) New York City
Ashley, Eugene	(Mhtn) New York City
Attwood, Frederick Julius, Jr	(Bklyn) New York City
Borsody, Alexander	(Mhtn) New York City
Carbo, Luis Alberto	Short Hills, N. J.
Cluthe, Herman	(Q) New York City
Cook, Thomas Fowke	(Mhtn) New York City
Cookson, James Slocum	Suffern, N. Y.
Denison, Griswold, II	(Bklyn) New York City
Duncombe, Frederic H	Mt. Vernon, N. Y.
Emery, Loren	(Mhtn) New York City
English, Pierre Villiot	(Mhtn) New York City
Gillies, William F	Montclair, N. J.
Grant, Harry Allen	Tarrytown, N. Y.
Hanan, Herbert Spencer	(Mhtn) New York City
Holmes, Duncan Argyle	(Mhtn) New York City
Howell, John Jacob	(Mhtn) New York City
Lockwood, Andrew Fletcher	(Mhtn) New York City
Mead, Theodore, Jr	Newark, N. J.
Peters, James F	Latrobe, Pa.
Riedel, Carl Oscar	(Bklyn) New York City
Robinson, Myron Wilbur	Englewood, N. J.
Sanguinetti, Philip Cohen	(Mhtn) New York City
Satterlee, Francis LeRoy, Jr	(Mhtn) New York City
Schreiber, Carl Theodore	(Bklyn) New York City

Stangland, Robert Sedgwick.................................Morton, N. Y.
Wagstaff, Alfred, Jr................................(Mhtn) New York City
Weinrich, Morris Frank.................................Yonkers, N. Y.
Willhöfft, Friedrich Otto..........................(Mhtn) New York City
Work, John Clinton....................................Oyster Bay, N. Y.
Worthington, Henry Rossiter.................Irvington-on-Hudson, N. Y.

Metallurgists

Cole, Walter Ferry....................................East Orange, N. J.
Green, George Gordon.................................Cincinnati, O.
Smillie, Sheldon..Ridgefield, Conn.

Chemists

Baker, Stanley.....................................(Mhtn) New York City
Berg, William Nathan..............................(Mhtn) New York City
Cox, Harold Newton................................(Bklyn) New York City
Falk, Milton..(Mhtn) New York City
Neugass, Solomon.................................(Mhtn) New York City
Popper, Edwin......................................(Mhtn) New York City
Sample, Clarence Walker Carleton...................(Mhtn) New York City

Architects

Burtis, William Edgar..............................(Bklyn) New York City
Cross, John W., A.B., *Yale*.........................(Mhtn) New York City
Curlett, Aleck Edward...............................San Francisco, Cal.
Ebling, Louis Allen.................................(Mhtn) New York City
Edwards, Franklyn Ellsworth, M.D., *University of Buffalo*, (Mhtn) New York City
Gevin, William McKendry, Jr.......................(Mhtn) New York City
Kent, Rockwell.......................................Tarrytown, N. Y.
Lobo, Arthur..(Mhtn) New York City
McVickar, John Augustus............................Dobbs Ferry, N. Y.
Marcus, Bertram Nathan............................(Mhtn) New York City
Merritt, Clarence C.................................(Mhtn) New York City
Percy, Harold Fairfax.................................Chatham, N. Y.
Savage, Leslie Loring..............................(Mhtn) New York City
Smith, Wilson Levering, A.B., *Johns Hopkins*.............Baltimore, Md.
Squires, Frederick, A.B., *Williams*.......................Plainfield, N. J.
Twyeffort, Walter Kleinert........................(Bklyn) New York City
Tyler, Ernest Franklin..............................New Haven, Conn.
Weeks, Louis Seabury..............................(Mhtn) New York City

First Year Class

Mining Engineers	34
Civil "	21
Electrical "	34
Mechanical "	31
Metallurgists	3
Chemists	7
Architects	18
	148

SPECIAL STUDENTS

Mining Engineers

Carrere, J. Maxwell, C.E., *Columbia*	(Mhtn) New York City
Cary, John Wilson	Denver, Colo.
Dillon, Ralph	Jerome, Arizona
Eyer, George Alexander	(Mhtn) New York City
Flint, Robert Philip, Ph.B., *Yale*	(Mhtn) New York City
Gard, Robert C.	Datil, N. M.
Gelder, Joseph Ethelwyn	Denver, Colo.
Griffin, George Francis	Chicago, Ill.
Hall, Walter Corwin	Sacramento, Cal.
Kemper, Lincoln Scott, LL.B., *Columbia*	(Mhtn) New York City
Lux, Frank August	San Francisco, Cal.
Lysle, Walter Scott	Allegheny, Pa.
Morley, William Raymond, C.E., *Penn. Military College*	Datil, N. M.
Page, William Marshall	(Mhtn) New York City

Civil Engineers

Case, Willard Lacey	Plainfield, N. J.
Garcelon, Charles Augustus, B.S., *Armour Institute of Technology,*	Chicago, Ill.

Electrical Engineers

Johnson, W. A.	Yonkers, N. Y.
Lloyd, Nafew Joseph	(Mhtn) New York City
McCune, Raymond	Salt Lake City, Utah

Mechanical Engineers

Berliner, Richard Walter	(Mhtn) New York City
Raisbeck, Percival Valentine	Pelham, N. Y.
Sandt, George Mifflin	Seabright, N. J.
Slocovich, William Parsons, Ph.B., *Yale*	New Brunswick, N. J.
Trask, Henry Keith	(Mhtn) New York City

Chemists

Bukofzer, Edwin, B.S., *Alabama Polytechnic Institute*	Chattanooga, Tenn.
Jacobson, Samuel Oscar, B.S., *N. Y City College*	(Mhtn) New York City
Schlegel, John William, Ph.G., *College of Pharmacy*	(Mhtn) New York City
Taylor, Jackson	Newburgh, N. Y.

Architects

Bishop, Samuel Rogers	New Haven, Conn.
Doughty, Edward Crosby, A.B., *Williams*	Williamstown, Mass.
Greenleaf, John Cameron, Ph.B., *Yale*	Lenox, Mass.
Labouisse, Samuel Stanhope, B.E., *Tulane University*	New Orleans, La.
Mersfelder, Albert	Newark, N. J.
Moore, Benjamin Burges, A.B., *Yale*	(Mhtn) New York City
Powell, William Robert	Radnor, O.
Sander, Edwin Jacob	(Mhtn) New York City
Sears, William Hatfield	Fabius, N. Y.
Struyk, John S.	Paterson, N. J.

SPECIAL STUDENTS

Mining Engineers	14
Civil "	2
Electrical "	3
Mechanical "	5
Chemists	4
Architects	10
	38

CANDIDATES FOR THE DEGREE OF MASTER OF ARTS

Chapman, James Edwin..........................Colorado Springs, Colo.
Colorado College, A.B., 1900
Mining, Geology, Mineralogy

Parker, James H....................................White Oaks, N. M.
State School of Mines, Colo., M.E., 1895
Mining, Geology

Tiemann, Hugh Philip............................(Mhtn) New York City
Columbia University, B.S., 1900
Metallurgy, Mechanical Engineering, Mineralogy

For Degree of Master of Arts............................ 3

CANDIDATES FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Bradford, Robert Henry............................Salt Lake City, Utah
University of Utah, B.S., 1895
Metallurgy, Mining, Mineralogy

Fernald, Robert Heywood.........................(Mhtn) New York City
Maine State College, B.M.E., 1892
Case School of Applied Science, M.E., 1898
Mechanical Engineering, Mechanics, Mathematics

For Degree of Doctor of Philosophy...................... 2

SUMMARY

UNDERGRADUATE STUDENTS

	First Year	Second Year	Third Year	Fourth Year	Totals
SCHOOL OF MINES:					
Mining Engineering	34	31	27	18	110
Metallurgy	3	2	1	1	7
SCHOOL OF CHEMISTRY	7	16	7	9	39
SCHOOL OF ENGINEERING:					
Civil Engineering	21	24	15	18	78
Electrical Engineering	34	22	27	23	106
Mechanical Engineering	31	25	25	17	98
SCHOOL OF ARCHITECTURE	18	10	17	13	58
	148	130	119	99	496

Special Students		38
Graduate Students:		
For Degree of Master of Arts	3	
" " " Doctor of Philosophy	2	
		5
STUDENTS PRIMARILY REGISTERED UNDER THIS FACULTY		539
STUDENTS FROM OTHER FACULTIES OF THE UNIVERSITY:		
From the College		2
TOTAL		541

NOTE

At Columbia, the Faculties of Philosophy, Political Science, and Pure Science conduct the work frequently organized in the United States in a graduate school. The organization by separate faculties is preferred at Columbia, because it more clearly differentiates the work of a college from that of a university, the chief object of the former being to give a liberal education, and the chief object of the latter to make specialists, and more clearly distinguishes the main lines of university work from each other; and, also, because it is hoped at Columbia, in course of time, to make all of the professional schools of the University graduate schools. The three Faculties of Philosophy, Political Science, and Pure Science conduct the non-professional work of the University. The details concerning each are given in the order of the establishment of the three faculties at Columbia University.

SCHOOL OF POLITICAL SCIENCE

The following departments are represented in the Faculty:

- POLITICAL ECONOMY AND STATISTICS
- FINANCE
- ECONOMIC THEORY
- SOCIOLOGY
- HISTORY
- POLITICAL PHILOSOPHY
- CONSTITUTIONAL LAW
- ADMINISTRATIVE LAW
- INTERNATIONAL LAW
- ROMAN LAW AND COMPARATIVE JURISPRUDENCE

Officers of the Faculty

John W. Burgess, Ph.D., LL.D. .... *Dean and Ex-Officio Member of the University Council*

Frank J. Goodnow, LL.D. .... *Secretary*

Richmond Mayo-Smith, Ph.D. ... *Elected Delegate to the University Council*

The Faculty

Seth Low, LL.D., *President*

John W. Burgess, Ph.D., LL.D., *Professor of Political Science and Constitutional Law*

Richmond Mayo-Smith, Ph.D., *Professor of Political Economy and Social Science*

Munroe Smith, A.M., J.U.D., *Professor of Roman Law and Comparative Jurisprudence*

Frank J. Goodnow, LL.D., *Professor of Administrative Law*

Edwin R. A. Seligman, LL.B., Ph.D., *Professor of Political Economy and Finance*

Herbert L. Osgood, Ph.D., *Professor of History*

William A. Dunning, Ph.D., *Professor of History and Political Philosophy*

John Bassett Moore, LL.D., *Hamilton Fish Professor of International Law and Diplomacy*

Franklin H. Giddings, Ph.D., *Professor of Sociology*

JOHN B. CLARK, Ph.D., LL.D., *Professor of Political Economy*
JAMES HARVEY ROBINSON, Ph.D., *Professor of History*
WILLIAM MILLIGAN SLOANE, Ph.D., L.H.D., *Seth Low Professor of History*

Other Officers

MILO ROY MALTBIE, Ph.D., *Prize Lecturer, 1898–1901, on Municipal Government*

WILLIAM Z. RIPLEY, Ph.D., *Prize Lecturer, 1899–1902, on European Demography*

GEORGE JAMES BAYLES, Ph.D., *Prize Lecturer, 1900–1903, on Ecclesiastical Organization and Government in the United States*

ARTHUR M. DAY, A.M., *Instructor in Political Economy and Social Science*

GENERAL STATEMENT

The Faculty of Political Science has charge of the university courses of study and research in political and social science, including history, economics, and public law.

The School of Political Science was opened on Monday, the fourth day of October, 1880.

It is the purpose of the school to give a complete general view of all the subjects of public policy, both internal and external, from the threefold point of view of history, law, and philosophy. The prime aim is therefore the development of all the branches of the political and social sciences. The secondary and practical objects are:

(*a*) To fit young men for all political branches of the public service.

(*b*) To give an adequate economic and legal training to those who intend to make journalism their profession.

(*c*) To supplement, by courses in public law and comparative jurisprudence, the instruction in private municipal law offered by the Faculty of Law.

(*d*) To educate teachers of political and social science.

To these ends courses of study are offered of sufficient duration to enable the student not only to attend the lectures and recitations with the professors, but also to consult the most approved treatises upon the political sciences and to study the sources of the same.

Young men who wish to obtain positions in the United States Civil Service—especially in those positions in the Department of State for which special examinations are held—will find it advantageous to follow many of the courses under the Faculty of Political Science. Some of the subjects upon which applicants for these positions are examined are treated very fully in the curriculum of the school. Thus, extended courses of lectures are given on political geography and history, diplomatic history and international law, government, and administration.

The work in economics and sociology falls under three heads, viz.: the university courses of instruction in the various departments of economic and social science, the work in the statistical laboratory, and the "field-work," or practical work in connection with the Charity Organization Society, the Brooklyn Bureau of Charities, the State Charities Aid Association, the University Settlement Society of New York City, and the East Side House. These are fully explained in the detailed circular of the School of Political Science.

ADMISSION AND ATTENDANCE

Every student is required to file a list of his studies for the academic year at the time he registers, or within one week thereafter, at the office of the Registrar. If he subsequently wishes to make any change in his studies he must file written notice of his wish at the Dean's office, and must obtain the assent of the Dean.

Immediate written notice must be given to the Dean of any change of address.

Admission to the School of Political Science does not imply admission to candidacy for a degree. The conditions of candidacy for the several degrees are given below.

ADMISSION TO OTHER COURSES

Any duly matriculated university student is at liberty to combine courses of study and investigation under this Faculty with courses offered by the College or by the Faculties of Philosophy, Law, Medicine, Pure Science, and Applied Science without any additional fee.

Undergraduate studies of particular value to students in this school are as follows:

	Hours per week.
Rapid Survey of Mediæval and Modern History.	3
Ancient and Mediæval History	2
Modern European History	2
English History	2
American History	3
Outlines of Economics (second half-year)	3
Economic History (first half-year)	3

Among the cognate courses given by the Faculty of Philosophy are:

History of philosophy, 2 hours a week; ethics, 2 hours a week; courses in the various modern languages, and others.

FEES

(See page 29)

CANDIDATES FOR A DEGREE

Students are received as candidates for the degree of Master of Arts, Master of Laws, or Doctor of Philosophy.

If the applicant is a candidate for a degree, he must file a certificate, sufficient to furnish evidence of his completion of the Junior year, or if he holds a degree from any institution, he must file diplomas or certificates sufficient to furnish evidence of such degree or degrees. Blanks for this purpose may be secured at the office of the Registrar. Certificates of graduation or dismissal from institutions of learning in foreign countries are also accepted. The certificates should be accompanied by catalogues or calendars of the colleges or other institutions of advanced grade at which the student has previously studied, which must be marked so as to show clearly his course of study there. This condition may be dispensed with in the case of those colleges and institutions whose bachelor's degree is recognized by the University Council as a basis for the higher degrees.

Students may present themselves for examination for a degree at any time during the year, whenever the requirements as to residence and an essay or dissertation have been complied with.

COURSES OF INSTRUCTION

For the courses offered in 1900–1901, see departmental statements, as follows:

History and Political Philosophy, page 130.
Public Law and Comparative Jurisprudence, page 139.
Economics and Social Science, page 92.

For more detailed accounts of the courses and for the tender of 1901–1902, application should be made for the Announcement of the Schools of Political Science, Philosophy, and Pure Science.

Seminars

Outside of the regular instruction in the various subjects by lecture, it is the practice to furnish the students of the school an opportunity for special investigation of historical, legal, economic, and social questions under the direction of the professors. This is done by means of original papers prepared by the students. The papers are read before the professor and the students, and are then criticised and discussed. There will be at least one seminar in each subject. The number of meetings and the topics to be discussed are determined each year. Attendance at the seminar in the major subject is necessary on the part of candidates for the degree of Master of Arts or Doctor of Philosophy.

There are also preliminary seminars in history and political economy, designed primarily for those who are not fully prepared for the more advanced work. A preliminary seminar taken by a candidate for the degree of Bachelor of Arts will count for one point toward the degree.

Courses Open to Seniors in Columbia College

History	**11.**	Antecedents of Modern European History.
"	**14a.**	Antecedents and Opening of the French Revolution.
"	**14b.**	The Age of the Revolution, 1791–1815.
"	**16.**	Constitutional History of England to 1689.
"	**30.**	Transitions in American History.
"	**31.**	Political and Constitutional History of the United States.
"	**40.**	History of Political Theories.
Economics	**3.**	Practical Political Economy.
"	**4.**	Science of Finance.
"	**11.**	Communistic and Socialistic Theories.
"	**12.**	Theories of Social Reform.
Sociology	**15.**	Principles of Sociology.
"	**16.**	Racial Demography.

SCHOOL OF PHILOSOPHY

The following departments are represented in the Faculty:

ENGLISH
COMPARATIVE LITERATURE
GERMANIC LANGUAGES AND LITERATURES
GREEK LANGUAGE AND LITERATURE
INDO-IRANIAN LANGUAGES
LATIN LANGUAGE AND LITERATURE
MUSIC
PHILOSOPHY AND EDUCATION
PSYCHOLOGY AND ANTHROPOLOGY
ROMANCE LANGUAGES AND LITERATURES
SEMITIC LANGUAGES

Officers of the Faculty

Nicholas Murray Butler, Ph.D., LL.D., *Dean and Ex-Officio Member of the University Council*

George Rice Carpenter, A.B., *Secretary*

William Henry Carpenter, Ph.D., *Elected Delegate to the University Council*

The Faculty

Seth Low, LL.D., *President*

Thomas Randolph Price, M.A., LL.D., *Professor of the English Language and Literature*

Harry Thurston Peck, Ph.D., L.H.D., *Professor of the Latin Language and Literature*

Nicholas Murray Butler, Ph.D., LL.D., *Professor of Philosophy and Education*

William Henry Carpenter, Ph.D., *Professor of Germanic Philology*

James McKeen Cattell, Ph.D., *Professor of Psychology*

Edward Delavan Perry, Ph.D., *Jay Professor of the Greek Language and Literature*

Abraham Valentine Williams Jackson, Ph.D., L.H.D., *Professor of the Indo-Iranian Languages*

Adolphe Cohn, LL.B., A.M., *Professor of the Romance Languages and Literatures*

George Edward Woodberry, A.B., *Professor of Comparative Literature*

Brander Matthews, LL.B., D.C.L., *Professor of Dramatic Literature*

Richard James Horatio Gottheil, Ph.D., *Professor of Rabbinical Literature and the Semitic Languages*

Henry Alfred Todd, Ph.D., *Professor of Romance Philology*

George Rice Carpenter, A.B., *Professor of Rhetoric and English Composition*

James Rignall Wheeler, Ph.D., *Professor of Greek*

James Hervey Hyslop, Ph.D., *Professor of Logic and Ethics*

James Chidester Egbert, Jr., Ph.D., *Professor of Roman Archæology and Epigraphy*

Carlo Leonardo Speranza, A.M., B. ès L., *Adjunct Professor of the Romance Languages and Literatures*

Calvin Thomas, A.M., *Gebhard Professor of the Germanic Languages and Literatures*

Edward Alexander MacDowell, Mus.D., *Professor of Music*

Franz Boas, Ph.D., *Professor of Anthropology*

James Earl Russell, Ph.D., *Professor of the History of Education* (Teachers College)

Frank Morton McMurry, Ph.D., *Professor of the Theory and Practice of Teaching* (Teachers College)

Mortimer Lamson Earle, Ph.D., *Professor of Classical Philology* (Barnard College)

Gonzales Lodge, Ph.D., *Professor of Greek and Latin* (Teachers College)

William Peterfield Trent, M.A., LL.D., *Professor of the English Language and Literature* (Barnard College)

Note—For details as to other officers of instruction, see departmental statements.

GENERAL STATEMENT

The Faculty of Philosophy has charge of the university courses of instruction and research in philosophy, philology, and letters. Any duly matriculated university student is at liberty to combine courses of study and investigation under this Faculty with courses offered by the Faculties of Law, Medicine, Political Science, Pure Science, and Applied Science.

Students are received either as candidates for the degrees of Master of Arts and Doctor of Philosophy, or to pursue special or partial courses. Some courses of lectures are open to the public, men and women alike, on payment of an auditor's fee. No auditor will be admitted to any course without the consent of the instructor, previously obtained. Auditors do not have, and cannot receive, any university recognition whatever.

Students enrolled either in the General, the Union, or the Jewish Theological Seminary, in the City of New York, or in the Drew Theological Seminary at Madison, N. J., who may be designated for the privilege by the authorities of those institutions, and accepted by the President of Columbia University, are admitted to the courses offered by the Faculty of Philosophy free of any charge for tuition.

Students enrolled in the Art Schools of the Metropolitan Museum of Art, who may be designated for the privilege by the authorities of those schools, and accepted by the President of Columbia University, are permitted to attend the course of lectures on archæology and æsthetics free of any charge of tuition.

Duly qualified students of Teachers College are permitted to enter the courses offered by the Faculty of Philosophy, either as candidates for degrees or as special students.

All of these institutions offer reciprocal privileges to students of Columbia University.

ADMISSION AND ATTENDANCE

Candidates for the degrees of Master of Arts and Doctor of Philosophy must hold a bachelor's degree from some college in good standing, or present satisfactory evidence of having completed an equivalent course of study at a foreign institution, and must remain in residence for not less than one and two years, respectively. They are required to pursue courses of study and research in one major and two minor subjects, the number of hours of attendance per week being adjusted to the needs and demands of the individual student. University residence of not less than three years is usually necessary in order to obtain the degree of Doctor of Philosophy.

In the Faculty of Philosophy admission as a regular student or as a candidate for the degree of Master of Arts does not admit to candidacy for the degree of Doctor of Philosophy. Only those students are admitted to candidacy for the degree of Doctor of Philosophy who

1. Are recommended for such candidacy by the heads of the departments in which their major and minor subjects of study lie ;
2. Are certified as to their ability to read French and German by the heads of those departments ;
3. Are certified as to their ability to read Latin by the head of that department; provided that students whose major subject is psychology, anthropology, education, or music shall not be required to meet this test when it is certified by the professor in charge of their major subject that an ability to read Latin is not necessary for the proper prosecution of their researches.

When a student is admitted to candidacy for the degree of Doctor of Philosophy, he may be credited with his past period of university residence, at Columbia or elsewhere, or with so much thereof as may be determined by the Dean and the professor in charge of the candidate's major subject.

Students who are not candidates for a degree are admitted to any courses which they are found competent to undertake. Such students must, however, possess the qualifications for admission named above.

There are no examinations for admission, either as candidates for a degree or as special students. Students are admitted at any time during the year, and may present themselves for examination for a degree whenever the requirements as to residence and an essay or dissertation have been complied with.

For fees see page 29.

COURSES OF STUDY AND RESEARCH

For the courses offered for 1900–1901, see departmental statements as follows :

Philosophy and Education, page 173.
Psychology and Anthropology, page 173.
Greek (including Archæology and Epigraphy), page 127.
Latin (including Epigraphy and Roman Archæology), page 136.
English, page 116.
Comparative Literature, page 89.
Music, page 159.
Germanic Languages, page 123.
Romance Languages:
  French, page 192.
  Italian, page 196.
  Spanish, page 196.
  Provençal, page 196.
  Portuguese and Rumanian, page 197.
  Romance Philology, page 197.
Oriental Languages:
  Semitic Languages, page 165.
  Indo-Iranian Languages, page 163.
Science of Language, page 164.

Courses at the Union Theological Seminary

New Testament Greek, page 129.
Ethics, page 176.
Philosophy of Religion, page 176.

For the courses to be offered for 1901-1902, application should be made for the announcement of the schools of Philosophy, Political Science, and Pure Science, and the various departmental circulars which may be had after April 15.

SCHOOL OF PURE SCIENCE

The following departments are represented in the Faculty:

ANATOMY
ASTRONOMY
BACTERIOLOGY
BOTANY
CHEMISTRY
GEOLOGY
MATHEMATICS
MECHANICS
MINERALOGY
PHYSICS
PHYSIOLOGY
ZOÖLOGY

Officers of the Faculty

ROBERT S. WOODWARD, C.E., Ph.D......*Dean and Ex-Officio Member of the University Council*
WILLIAM HALLOCK, A.B., Ph.D.................. ....*Secretary*
JAMES F. KEMP, A.B., E.M........*Elected Delegate to the University Council*

The Faculty

SETH LOW, LL.D., *President*

J. HOWARD VAN AMRINGE, Ph.D., L.H.D., LL.D., *Professor of Mathematics*
OGDEN N. ROOD, A.M., *Professor of Physics*
CHARLES F. CHANDLER, Ph.D., M.D., LL.D., Sc.D. (Oxon.) *Professor of Chemistry*
JOHN K. REES, A.M., E.M., Ph.D., *Professor of Astronomy and Director of the Observatory*
JOHN G. CURTIS, A.M., M.D., *Professor of Physiology*
ALFRED J. MOSES, E.M., Ph.D., *Professor of Mineralogy*
GEORGE S. HUNTINGTON, M.D., *Professor of Anatomy*
HENRY FAIRFIELD OSBORN, Sc.D., *Da Costa Professor of Zoölogy*
EDMUND B. WILSON, Ph.D., *Professor of Zoölogy*
JAMES F. KEMP, A.B., E.M., *Professor of Geology*
WILLIAM HALLOCK, A.B., Ph.D., *Adjunct Professor of Physics*
MICHAEL I. PUPIN, Ph.D., *Adjunct Professor of Mechanics*
T. MITCHELL PRUDDEN, M.D., *Professor of Bacteriology*
ROBERT S. WOODWARD, C.E., Ph.D., *Professor of Mechanics and Mathematical Physics*
THOMAS S. FISKE, A.M., Ph.D., *Professor of Mathematics*
HAROLD JACOBY, Ph.D., *Adjunct Professor of Astronomy*
FRANK N. COLE, Ph.D., *Professor of Mathematics*
FREDERIC S. LEE, Ph.D., *Adjunct Professor and Demonstrator of Physiology*
LUCIEN M. UNDERWOOD, Ph.D., *Professor of Botany*
*BASHFORD DEAN, Ph.D., *Adjunct Professor of Zoölogy*

NOTE.—For details as to other officers of instruction, see departmental statements.

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* Absent on leave.

GENERAL STATEMENT

The Faculty of Pure Science has charge of the university courses of instruction and research in all branches of pure science, and especially the supervision of candidates for the degrees of Master of Arts and Doctor of Philosophy in pure science. Students under other university faculties are also at liberty to pursue courses of study and investigation under this Faculty.

Candidates for the higher degrees taking major subjects in pure science will be regarded as under the special jurisdiction of this Faculty, and must apply to the Dean for registration before entering upon their work. The same registration requirement must also be complied with by students who desire to pursue special subjects under this Faculty.

In the Faculty are represented all the departments of the University which give instruction in pure science.

Graduate students, candidates for the degree of Master of Arts or Doctor of Philosophy, are subject:

1st. To the general regulations of the University Council. (See p. 207.)

2d. To the special regulations of this Faculty.

Special Regulations of the Faculty of Pure Science

The degree of Doctor of Philosophy is awarded on the basis of a thorough training in the methods of advanced work and investigation in some branch of science. The following statements are offered for the guidance of students. In the case of students of especial ability or exceptional previous training, the Faculty may modify its usual regulations.

The student is expected to gain a sound general knowledge of the two minor subjects of his choice. In the major subject a much more thorough and special knowledge is required, particular importance being attached to training in research. In order to avoid undue specialization, no two subjects can be chosen from the same department without the consent of the Faculty.

One year's study in residence in the University is required for the degree of Master of Arts, and three years' study for the degree of Doctor of Philosophy, at least one year of which shall be in residence. Candidates for either of these degrees are expected to devote at least one half their time throughout their course of study to the major subject. In the case of laboratory courses this implies two days a week, or its equivalent, as determined by each department. Each minor subject is intended to occupy approximately one fourth of the time during one year for the degree of Master of Arts, and during one or two years, according to the nature of the subject and the previous training of the candidate, for the degree of Doctor of Philosophy. It is expected that the third year of study, and in certain cases both the second and the third years, will be wholly devoted to the major subject and to investigation for the dissertation.

The approval of the subject of the essay required for the degree of Master of Arts, or the subject of the dissertation required for the degree of Doctor of Philosophy, as well as the essay or dissertation itself, rests with the instructor in charge of the candidate's major subject. It is desirable that these studies should be related, and, when practicable, that they should be treated respectively as preliminary and completed investigations. Great importance is attached to the character of the final dissertation. While it must depend for acceptance chiefly on the subject-matter, it should show good literary workmanship, especially by directness and clearness of statement. It should demonstrate the author's capacity to do original scientific work and to render an intelligible account thereof. It should evince a familiarity with the literature of the subject and with the latest methods of research applicable to it. The treatment should be as concise as the nature of the work permits. Every dissertation should be preceded by a clear introductory statement setting forth the nature and the scope of the research, and be followed by a résumé of the results and the conclusions obtained. It should also be accompanied by a table of contents and by a list of the authorities consulted in its preparation.

Special Students

Students who are not candidates for a degree may be permitted to pursue such courses from among those offered by this Faculty as they may be found qualified to enter upon. Each applicant must demonstrate his preparation for, and his ability to pursue, the course or courses selected, and of his qualifications the heads of the departments in which he proposes to study shall be the judges. In general these special courses are open only to advanced students.

COURSES OF STUDY

For the courses offered for 1900–1901, see departmental statements as follows:

Anatomy, page 65
Astronomy, page 72
Bacteriology, page 169
Botany, page 75
Chemistry, page 80
Geology, page 120
Mathematics, page 141
Mechanics, page 143
Mineralogy, page 150
Physics, page 183
Physiology, page 187
Zoölogy, page 200

For more detailed accounts of the courses and for the tender of 1901–1902, application should be made for the announcement of the Schools of Political Science, Philosophy, and Pure Science.

REGISTER OF STUDENTS

Under the Faculties of Political Science, Philosophy, and Pure Science

Abell, William Maitland................................Mt. Vernon, N. Y.
Yale University, A.B. 1887; A.M., 1898.
New York University, LL.M., 1894.
International Law, Administrative Law, Constitutional Law, Political Philosophy.

† Abelson, Paul....................................(Mhtn) New York City
College of the City of New York, A.B., 1899.
European History, American History, Political Economy and Finance.

Abramowitz, Herman..............................(Mhtn) New York City
College of the City of New York, A.B., 1900.
Philosophy, Education, Hebrew.

Adams, William Herbert............................(Mhtn) New York City
College of St. Francis Xavier, A.B., 1900.
International Law, Administrative Law, Political Economy and Finance, American History.

Alexander, Hartley Burr....................................Lincoln, Neb.
University of Nebraska, 1897.
Philosophy, Psychology.

* Alger, Lewis Burton..................................St. Joseph, Mich.
Albion College, 1893–96.
University of Michigan, Ph.B., 1897.
Education, Geography.

Allen, Lucy Branch................................(Mhtn) New York City
Wellesley College, A.B., 1897.
Philosophy.

† Angell, Nina..Ithaca, N. Y.
Cornell University, A.B., 1900.
Education, Philology.

Atkinson, John Hampton............................(Mhtn) New York City
Ohio University, Ph.B., 1897.
English, Education.

Avery, Clara Aurilla................................(Mhtn) New York City
Leland Stanford, Jr., University, A.B., 1898.
Education, History.

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* Also a candidate for the Higher Diploma, Teachers College.
† Also a candidate for the Secondary Diploma, Teachers College.

† Ayres, Mary Stevens............................(Bklyn) New York City
Leland Stanford, Jr., University, 1893–94.
Wellesley College, A.B., 1900.
English.

* Bachman, Frank Puterbaugh............................Mackinaw, Ill.
University of Chicago, A.B., 1898.
Education, Psychology.

Bacon, Wentworth Conger............................(Mhtn) New York City
St. Mark's School, Southboro', Mass.
International Law, Roman Law and Comparative Jurisprudence, European History.

† Baldwin, Arthur Pond............................(Bklyn) New York City
College of the City of New York, A.B., 1876.
Education.

Baldwin, Florence Theodora............................(Mhtn) New York City
Columbia University, A.B., 1900.
Latin, Greek.

Ball, Allan Perley............................(Mhtn) New York City
Amherst, A.B., 1892; A.M., 1895.
Latin, Greek.

Banks, Enoch Marvin............................Grantville, Ga.
Emory College, A.B., 1897; A.M., 1899.
Political Economy and Finance, Sociology and Statistics, American History.

Bard, Harry Erwin............................(Mhtn) New York City
Wabash College, A.B., 1894; A.M., 1898.
Greek, Philosophy, Church History.

Barnett, James Foote............................Grand Rapids, Mich.
Yale University, A.B., 1891.
New York Law School, LL.B., 1893.
International Law, Constitutional Law, European History.

Batchelder, Gilbert Newton............................Fitchburg, Mass.
Brown University, B.S., 1900.
Chemistry, Metallurgy.

Bates, Abby Barstow............................Newton, Mass.
Boston University, A.B., 1887; A.M., 1892.
Sociology and Statistics.

Bates, Charles Dyer............................Woodburn, Ky.
Cumberland Presbyterian Theological Seminary, B.D., 1897.
Sociology and Statistics, English.

† Beardslee, Esmond B............................Little Meadows, Pa.
Colgate University, A.B., 1897.
Education, American History.

Becket, Frederick Mark............................(Mhtn) New York City
McGill University, B.A., Sc., 1895.
Columbia University, A.M., 1899.
Chemistry, Metallurgy.

* Also a candidate for the Higher Diploma, Teachers College.
† Also a candidate for the Secondary Diploma, Teachers College.

Beckhardt, Moses....................................(Mhtn) New York City
College of the City of New York, B.S., 1894.
Columbia University, A.M., 1900.
Education, Sociology, Hebrew.

Belcher, Sarah Drowne..............................(Mhtn) New York City
Boston University, A.B., 1887.
Woman's Medical College, N. Y., M.D., 1891.
New York University, A.M., 1899.
Sociology and Statistics.

Benedict, Marion....................................(Bklyn) New York City
Vassar College, A.B., 1900.
European History, American History, Sociology and Statistics.

* Bennion, Milton....................................Salt Lake City, Utah
University of Utah, B.S., 1897.
Education, Philosophy, Psychology.

* Bentley, Rufus Clarence..................................San Rafael, Cal.
University of Nebraska, A.B., 1894; A.M., 1896.
Education, Psychology.

Bigelow, Lewis Sherrill................ ....(Mhtn) New York City
Yale University, A.B., 1887; LL.B., 1889.
Comparative Literature.

Bishop, William Warner..........................(Bklyn) New York City
University of Michigan, A.B., 1892; A.M., 1893.
Greek.

† Blair, Caroline Winifred..........................Wolfville, Nova Scotia
Acadia University, A.B., 1898.
Education, English.

Blessing, Charles Winne............................(Mhtn) New York City
Union College, A.B., 1888; A.M., 1891.
Boston University, S.T.B., 1893.
Philosophy, Education.

Bliss, Ralph Potter..Auburn, N. Y.
Colgate University, Ph.B., 1899.
Mathematics, Physics, Mechanics.

† Blodgett, Frederick Harvey.........................(Br) New York City
Rutgers College, B.S., 1897; M.S., 1899.
Botany, Geology.

Bogart, Sarah Helen..............................(Mhtn) New York City
Wellesley College, A.B., 1899.
Columbia University, A.M., 1900.
Greek.

Bordwell, Walter Percy..................................Alameda, Cal.
University of California, B.L., 1898.
International Law, Administrative Law, Constitutional Law, American History.

* Also a candidate for the Higher Diploma, Teachers College.

† Also a candidate for the Secondary Diploma, Teachers College.

Boroschek, Leopold..................................(Mhtn) New York City
College of the City of New York, B.S., 1897.
Columbia University, A.M., 1900.
Chemistry, Physics.

Bosse, Karl Kurt..................................(Mhtn) New York City
Cornell University, B.S., 1897.
Psychology, Anthropology, Education.

Boyd, William Ballantine..........................(Mhtn) New York City
College of the City of New York, B.S., 1897.
Anatomy, Physiology.

Boyd, William Kenneth..................................Deerham, N. C.
Trinity College, N. C., A.B., 1897; A.M., 1898.
European History, American History, Roman Law and Comparative Jurisprudence.

Boydstun, James Fucher............................Port Jefferson, N. Y.
Agricultural College, Mississippi; B.S., 1890.
Education, Psychology, Physiological Chemistry.

Brackett, Mary Morrell............................(Mhtn) New York City
Columbia University, A.B., 1899.
Botany.

Breese, Burtis Burr...............................Irvington-on-Hudson
Harvard University, A.B., 1897; A.M., 1898.
Columbia University, Ph.D., 1899.
Psychology.

Britt, Albert.......................................(Mhtn) New York City
Knox College, A.B., 1898.
Political Economy and Finance, Sociology and Statistics.

Brooks, John Lee..Madison, N. J.
Southwestern University, A.M., 1893.
Drew Theological Seminary, B.D., 1900.
Education, Psychology, Sociology and Statistics.

* Broome, Edwin Cornelius.......................(Mhtn) New York City
Brown University, B.P., 1897; A.M., 1898.
Education, English.

† Brown, Marion Raymond..............................Oxford, N. Y.
Wells College, A.B., 1898.
Education, Botany.

Brummer, Sidney David...........................(Mhtn) New York City
College of the City of New York, A.B., 1899.
European History, Political Economy and Finance.

* Brunn, Freda Marguerita.......................(Bklyn) New York City
Teachers College, 1897.
Adelphi College, A.B., 1899.
Education.

* Also a candidate for the Higher Diploma, Teachers College.
† Also a candidate for the Secondary Diploma, Teachers College.

Brydges, Ralph Lionel..Islip, N. Y.
Columbia University, A.M., 1897.
Philosophy.

Bryson, Ella Fitzgerald..............................(Mhtn) New York City
Columbia University, A.B., 1894.
Greek.

Burd, Charles Gillette..............................(Mhtn) New York City
Amherst College, A.B., 1898.
Sociology and Statistics, Education.

† Burr, Marjorie....................................Williamstown, Mass.
Vassar College, A.B., 1899.
English, History.

Camera, Americo Ulysses Nicholas..................(Bklyn) New York City
New York University, Ph.B., 1900.
French, Italian.

Canfield, Dorothea Frances.........................(Mhtn) New York City
State University of Ohio, B.Ph., 1899.
French, Italian, Science of Language.

Cannon, William Austin..............................Washington, Mich.
Leland Stanford, Jr., University, A.B., 1899; A.M., 1900.
Botany, Physiology, Zoölogy.

Capen, Edward Warren.............................Jamaica Plain, Mass.
Amherst College, A.B., 1894.
Sociology and Statistics, American History, Constitutional Law.

† Carpenter, Jane Brodie..................................Andover, Mass.
Mt. Holyoke College, B.L., 1897; A.B., 1898.
Education, English.

Carss, Elizabeth...................................(Mhtn) New York City
New York City Normal College, A.B., 1893.
Cornell University, Ph.B., 1895.
Botany, Zoölogy.

Carter, Marion Hamilton...........................(Mhtn) New York City
Cornell University, B.S., 1898.
Sociology and Statistics.

Casamajor, Alice..................................(Bklyn) New York City
Adelphi College, A.B., 1899.
Education.

Cattell, Henrietta Maillard..............................Peekskill, N. Y.
Wellesley College, A.B., 1892.
Mechanics.

Chamberlain, Elizabeth................................Chappaqua, N. Y.
Vassar College, A.B., 1876.
French, German.

Chandor, Valentine Laura..............................Plainfield, N. J.
Columbia University, A.B., 1900.
European History, American History, Sociology and Statistics.

† Also a candidate for the Secondary Diploma, Teachers College.

Chase, John Hildreth....................................Bellows Falls, Vt.
Amherst College, B.S., 1896.
Columbia University, A.M., 1900.
Sociology and Statistics, *European History*, *Education*, *Philosophy*.

Chickering, Edward Conner..........................(Q) New York City
Yale University, A.B., 1896.
Harvard University, A.M., 1897.
Latin, *Greek*.

Choate, Miriam Foster..................................Greenwich, Conn.
Smith College, A.B., 1899.
European History, *Political Economy and Finance*.

* Clark, Adelbert Thomas Selden...................(Mhtn) New York City
Union University, C.E., 1876; A.B., 1877; A.M., 1879.
Education, *History*, *Literature*.

Clark, Emily Josephine.............................St. Paul Park, Minn.
Wellesley College, A.B., 1882; M.A., 1893.
Latin, *Education*.

Clark, Harrison, Jr..............................(Mhtn) New York City
Columbia University, A.B., 1900.
Constitutional Law, *Roman Law and Comparative Jurisprudence*, *English*.

Clark, Walter Ernest..Delaware, O.
Ohio Wesleyan University, A.B., 1896; A.M., 1898.
Political Economy and Finance, *Sociology and Statistics*, *European History*.

Clark, William Francis...................................Meriden, Conn.
Yale University, A.B., 1897.
Union Theological Seminary, B.D., 1900.
Sociology and Statistics, *Political Economy and Finance*, *European History*.

Cocks, Orin Giddings............................(Mhtn) New York City
Union University, A.M., 1898.
Political Economy and Finance.

Coddington, Emily Matilda.......................(Mhtn) New York City
London University, A.B., 1896.
Columbia University, A.M., 1898.
Mathematics, *Mechanics*.

Coe, Margaret Elmer..............................(Mhtn) New York City
Smith College, A.B., 1897.
English, *Comparative Literature*.

Coffee, Rudolph Isaac......................................Oakland, Cal.
Columbia University, A.B., 1900.
Philosophy, *Hebrew*.

Colles, Julia Nelson...................................Morristown, N. J.
Wellesley College, A.B., 1897.
Smith College, M.A., 1900.
Physics, *Chemistry*, *Mechanics*.

* Also a candidate for the Higher Diploma, Teachers College.

Conant, Fred Rufus....................................Worcester, Mass.
Amherst College, A.M., 1898.
Philosophy, Sociology and Statistics, European History, Ethics.

Conant, Martha Pike....................................Greenfield, Mass.
Wellesley College, B.S., 1890; A.M., 1895.
Comparative Literature, English.

Connell, George Stanislaus........................(Mhtn) New York City
Columbia University, A.B., 1894.
English.

Cook, Elizabeth Christine............................Northampton, Mass.
Smith College, A.B., 1899.
English, Education.

Cooper, John H. Wallace........................(Bklyn) New York City
Westminster College, A.B., 1896; A.M., 1899.
Union Theological Seminary, B.D., 1900.
Sociology and Statistics.

Cordley, Annie Minto.................................Glen Ridge, N. J.
Wellesley College, B.S., 1887.
Political Economy and Finance.

Corning, William Butler.................................Palmyra, N. Y.
Columbia University, A.B., 1899.
American History, European History, Constitutional Law.

* Cottrell, John Boardman.........................(Bklyn) New York City
Alfred University, A.B., 1893.
New York University, A.M., 1900.
Education.

Crandall, Samuel Benjamin..........................Independence, N. Y.
Alfred University, B.S., 1897.
Constitutional Law, International Law, Administrative Law, American History.

Cummings, Fred Anson................................Spartanburg, S. C.
Wofford College, A.B., 1896.
English, Comparative Literature.

Cushing, Mary Gertrude..........................(Mhtn) New York City
Wellesley College, B.S., 1892; A.M., 1895.
French.

Dammes, Thomas Wesley.........................(Mhtn) New York City
Brown University, A.B., 1898.
Sociology and Statistics, Political Economy and Finance, European History.

Darlington, Frances M.................................Glen Mills, Pa.
Swarthmore College, A.B., 1896.
Greek, Latin, Education.

Davidson, Ellen Scott....................................Louisville, Ky.
Wellesley College, B.S., 1887.
Western Reserve University, A.M., 1894.
European History, Political Economy and Finance.

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* Also a candidate for the Higher Diploma, Teachers College.

Davidson, Israel....................................(Mhtn) New York City
College of the City of New York, A.B., 1895.
Arabic, Syriac, English.

† Dawson, Alice Belle.............................(Bklyn) New York City
Oxford College, A.B., 1891.
Latin, Education.

de Jarnette, Gabriel Harrison..................................Dallas, Tex.
Wesleyan College, Georgia, A.B.; A.M., 1863.
English.

de Mille, William Churchill...............................Pompton, N. J.
Columbia University, A.B., 1900.
English.

Derr, Anna Laurie................................(Mhtn) New York City
Leland Stanford, Jr., University, A.B., 1898.
French, Romance Philology, Italian, English.

Dickman, John William.......................................Fayette, Ia.
Upper Iowa University, Ph.B., 1888; Ph.M., 1891.
Political Economy and Finance, Sociology and Statistics, International Law.

Dionne, Gustave-Adolphe Leo......................(Mhtn) New York City
Wooster University, A.B., 1893.
French, German.

† Dixon, Sidney Harry.................................Yonkers, N. Y.
Columbia University, A.B., 1900.
Latin, Greek, Education.

† Dodd, Loring Holmes...........................(Mhtn) New York City
Dartmouth College, A.B., 1900.
Education, English.

Downer, Charles Alfred...........................(Mhtn) New York City
College of the City of New York, A.B., 1886.
Latin.

du Bois, Elizabeth Hickman.......................(Mhtn) New York City
Cornell University, A.B., 1897.
Latin.

Eastman, Emma.......................................Lake Charles, La.
Smith College, B.L., 1899.
Comparative Literature, English.

Easton, William Oliver...............................Springboro, O.
Wittenberg College, A.B., 1893.
Political Philosophy, American History, Constitutional Law.

Eccles, David Charles............................(Bklyn) New York City
Columbia University, B.S., 1900.
Chemistry, Physics, Geology.

Eggleston, Charlotte..................................(R) New York City
Smith College, A.B., 1900.
Mathematics, Mechanics, Philosophy.

† Also a candidate for the Secondary Diploma, Teachers College.

Eiselen, Frederick Carl....................................Passaic, N. J.
New York University, A.M., 1899.
Drew Theological Seminary, B.D., 1900.
Semitics, *Sanskrit*.

* Emerson, Mary Josephine........................(Mhtn) New York City
Wellesley College, B.S., 1892.
Education.

Erskine, John....................................(Mhtn) New York City
Columbia University, A.B., 1900.
English, *Italian*.

Fall, Frank Andrews..Albion, Mich.
Albion College, A.B., 1899.
Comparative Literature, *European History*.

Farrar, Preston Cooke......................................Allegheny, Pa.
Washington and Jefferson College, A.B., 1891; A.M., 1894.
English, *Comparative Literature*, *Education*.

* Farrington, Frederic Ernest.......................(Mhtn) New York City
Harvard University, A.B., 1894.
Education, *Psychology*.

Fenollosa, Ernest Francisco.................................Tokio, Japan
Harvard University, A.B., 1874.
Comparative Literature.

Finlay, George Irving.............................(Bklyn) New York City
Harvard University, A.B., 1898.
Geology, *Mineralogy*, *Palæontology*.

Finnigan, James Joseph............................(Mhtn) New York City
Columbia University, A.B., 1900.
French, *Romance Philology*, *Rumanian*, *Italian*, *German*.

† Fish, Lucia Hester..Oakland, Cal.
University of California, A.B., 1899.
Latin, *Greek*, *Education*.

Fishel, Lillian Henrietta..................................Babylon, N. Y.
Wellesley College, B.S., 1890.
Latin, *Greek*.

Fleming, Walter Lynwood.....................................Auburn, Ala.
Alabama Polytechnic Institute, B.S., 1896; M.S., 1897.
American History, *European History*, *International Law*.

Flint, Frances Elizabeth Holeman..................(Mhtn) New York City
Cornell University, A.B., 1892.
Education.

Fluhrer, Helen Pullman............................(Mhtn) New York City
Radcliffe College, A.B., 1900.
German.

* Also a candidate for the Higher Diploma, Teachers College.
† Also a candidate for the Secondary Diploma, Teachers College.

Foote, Franc Estelle..Rochester, N. Y.
Wellesley College, A.B., 1899.
Education.

Ford, Guy Stanton..Plainfield, Ia.
University of Wisconsin, B.L., 1895.
European History, American History, International Law.

Fowles, George Milton............................(Mhtn) New York City
Mt. Union College, A.B., 1895.
Boston University, S.T.B., 1897.
New York University, A.M., 1898.
Sociology and Statistics, Political Economy and Finance, Philosophy.

Frazier, Moses Leonard............................(Mhtn) New York City
Mt. Union College, Ph.B., 1896.
New York Law School, Ph.M., 1899; LL.B., 1899.
Constitutional Law, Sociology and Statistics, International Law.

Gage, Brownell..(Mhtn) New York City
Yale University, A.B., 1898.
Sociology and Statistics.

Gans, Daisy..(Bklyn) New York City
Vassar College, A.B., 1900.
Comparative Literature, Italian.

Gardiner, Royal..Troy Grove, Ill.
Economics, History.

Gardner, Anna Elizabeth..Syracuse, N. Y.
Smith College, A.B., 1895.
Latin, Greek, English.

Garner, James Wilford..Peoria, Ill.
Agricultural and Mechanical College of Mississippi, B.S., 1892.
University of Chicago, Ph.M., 1900.
Constitutional Law, Administrative Law, Roman Law and Comparative Jurisprudence, American History.

* Garritt, Albert Warren............................(Mhtn) New York City
College of the City of New York, B.S., 1890.
Education, Mathematics.

Gay, Robert Malcolm............................(Bklyn) New York City
Brooklyn Polytechnic Institute, A.B., 1900.
Comparative Literature, English.

† Gerken, Walter Diedrich..Jersey City, N. J.
Cornell University, B.S., 1899.
American History, European History, Constitutional Law.

Giffin, Frank Albee..Boulder, Colo.
University of Colorado, A.B., 1899; M.A., 1900.
Mathematics, Mechanics, Astronomy.

* Also a candidate for the Higher Diploma, Teachers College.
† Also a candidate for the Secondary Diploma, Teachers College.

Gilmour, George..Philadelphia, Pa.
Wesleyan University, A.B., 1898.
Princeton University, A.M., 1899.
Philosophy.

Ginzler, Arthur..................................(Mhtn) New York City
College of City of New York, A.B., 1900.
Philosophy, Education, Hebrew.

Glück, Emil.......................................(Mhtn) New York City
College of City of New York, A.B., 1896.
Education, English.

Golay, Juliette..Bangor, Me.
Vassar College, A.B., 1894.
Greek, Latin.

Goodman, Jules Eckert...................................Portland, Ore.
Harvard University, A.B., 1899.
English, Education.

Göransson, Fredrik..................................Sandviken, Sweden
Baccalaureate, Gefle, Sweden, 1897.
Mechanics, Metallurgy, Political Economy and Finance.

Gordon, George Andrew...............................Amesbury, Mass.
Brown University, A.B., 1895; A.M., 1896.
Union Theological Seminary, B.D., 1900.
Philosophy, Education.

Gotthelf, August Henry.................................Hastings, N. Y.
Columbia University, B.S., 1897; A.M., 1898; Ph.D., 1900.
Chemistry.

† Gould, Nelle Julia......................................Bayonne, N. J.
Smith College, A.B., 1898.
Education, Latin.

Gray, Anna Liguoria......................................Passaic, N. J.
Brown University, Ph.B., 1899.
English, Education.

Gray, Henry David...............................(Mhtn) New York City
Colgate University, Ph.B., 1897.
Columbia University, A.M., 1898.
Philosophy, English.

Gray, Louis Herbert......................................Newark, N. J.
Princeton University, A.B., 1896.
Columbia University, A.M., 1898; Ph.D., 1900.
Indo-Iranian, Armenian.

† Green, May Wolcott...............................(R) New York City
Syracuse University, A.B., 1895.
Latin.

Gregory, William King...........................(Mhtn) New York City
Columbia University, A.B., 1900.
Zoölogy.

Groezinger, Christian.................................Philadelphia, Pa.
Union Theological Seminary, B.D., 1900.
European History, English, Comparative Literature, German.

† Also a candidate for the Secondary Diploma, Teachers College.

Grove, Glen Arnold....................................Fayetteville, N. Y.
Colgate University, A.B., 1897.
English, Philosophy.

Grün, Pauline....................................(Mhtn) New York City
K. K. Lehrer-Bildunganstalt (Vienna), 1895.
German, English.

Gundersen, Carl....................................(Mhtn) New York City
Leland Stanford, Jr., University, A.B., 1897.
Columbia University, A.M., 1899.
Mathematics.

Haas, Arthur....................................(Mhtn) New York City
College of the City of New York, A.B., 1894.
Cooper Union, B.S., 1898.
Education.

* Hall, John William....................................Greeley, Col.
State Normal School, Normal, Ill., 1890.
University of Jena, 1892–95.
Education, Geography.

Hamilton, Clayton Meeker....................................(Mhtn) New York City
Brooklyn Polytechnic Institute, A.B., 1900.
English, Comparative Literature.

Hammerslough, Carrie....................................(Mhtn) New York City
Columbia University, A.B., 1896; A.M., 1897.
Mathematics, Italian.

Harlow, Sarah Havens....................................Nyack, N. Y.
Wellesley College, B.S., 1891.
Botany, Education.

Harper, Roland McMillan....................................(Mhtn) New York City
University of Georgia, B.E., 1897.
Botany, Geology, Mathematics.

Harrington, Thomas Henry....................................(Br) New York City
Columbia University, C.E., 1889.
Music.

Harrison, John Smith....................................Orange, N. J.
Columbia University, A.B., 1899; A.M., 1900.
Comparative Literature, English, Education.

Hashi, Hajime....................................Japan
Tokio College, Japan, 1896.
Political Economy and Finance, Sociology and Statistics, American History.

Hawk, Samuel Duckworth....................................Milford, N. J.
Lafayette College, A.B., 1900.
Sociology and Statistics.

Heck, William Harry....................................Raleigh, N. C.
Wake Forest College, A.B., 1897; A.M., 1899.
English, Education.

Henry, Margaret Young....................................Jersey City, N. J.
Wellesley College, A.B., 1897.
New York University, A.M., 1899.
Greek.

* Also a candidate for the Higher Diploma, Teachers College.

Hillman, Sara Frazer....................................Pittsburg, Pa.
Pennsylvania College for Women, B. L., 1897.
English, Education, Philosophy.

Hinckley, Frank Erastus....................................Oakland, Cal.
Beloit College, A.B., 1892; A.M., 1897.
International Law, Roman Law and Comparative Jurisprudence, European History.

Hino, Masumi....................................Yamagata, Japan
Columbia University, A.M., 1900.
Union Theological Seminary, B.D., 1900.
Philosophy, Psychology, Indo-Iranian Languages.

Hirst, Gertrude Mary....................................Ruswarp, England
University of Cambridge, A.B., 1890.
Columbia University, A.M., 1900.
Greek, Latin.

Hishida, Seiji....................................(Mhtn) New York City
New York University, A.B., 1900.
International Law, Roman Law and Comparative Jurisprudence, Political Economy and Finance.

Hoadley, Harwood....................................(Mhtn) New York City
Columbia University, A.B., 1900.
Greek, Latin.

Hoagland, Warren L., Jr....................................Newark, N. J.
Wesleyan University, A.B., 1898.
Columbia University, A.M., 1900.
Sociology and Statistics, Political Economy and Finance, Administrative Law.

Hodges, Archibald Livingston....................................(Mhtn) New York City
Harvard University, A.B., 1883; A.M., 1897.
Latin.

Hodges, Marianne Riddle....................................Baltimore, Md.
Woman's College of Baltimore, A.B., 1900.
Mathematics, Mechanics.

Hoffman, Adelaide Camilla....................................(Bklyn) New York City
Columbia University, A.B., 1899.
French.

Hopkins, B. Smith....................................Owosso, Mich.
Albion College, A.M., 1897.
Chemistry, Physics.

Horst, Andrew Light....................................Lebanon, Pa.
Harvard University, A.B., 1900.
Sociology and Statistics, Political Economy and Finance, Political Philosophy.

† Horst, Mabel Louise....................................Newark, N. J.
Vassar College, A.B., 1900.
English.

Houston, Henry Eugene....................................Paterson, N. J.
Columbia University, A.B., 1895.
Psychology.

† Also a candidate for the Secondary Diploma, Teachers College.

Howard, John K. . . . . Corsicana, Tex.
Trinity University, A.B., 1896.
Cumberland University, B.D., 1899.
Sociology and Statistics.

Howard, Lawrence Riggs . . . . Glencoe, Ill.
Williams College, A.B., 1898.
Political Economy and Finance.

Hyde, Henry St. John . . . . (Mhtn) New York City
Columbia University, Ph.B., 1896; A.M., 1898.
Chemistry.

Irving, Robert Edward Lee . . . . (Mhtn) New York City
Trinity University, A.B., 1881.
Sociology and Statistics.

Israeli, Phineas . . . . (Mhtn) New York City
College of the City of New York, A.B., 1899.
Philosophy, Education, Arabic.

Jackson, Alice Rebekah . . . . Kenneth Square, Pa.
Wellesley College, B.S., 1891.
Columbia University, A.M., 1900.
English, Comparative Literature, Philosophy.

Jarvis, Royal Preston . . . . Crested Butte, Colo.
Colorado State School of Mines, E.M., 1897.
Chemistry, Metallurgy, Geology.

* Jenks, Elijah, Jr . . . . (Br) New York City
College of the City of New York, B.S., 1889.
Education.

* Jenks, Paul Rockwell . . . . Concord, N. H.
Dartmouth College, A.B., 1894.
Education, Greek.

Joffé, Joshua Abraham . . . . (Mhtn) New York City
Student, University of Berlin.
Philosophy, Education.

Johnson, Alvin Saunders . . . . Dakota City, Neb,
University of Nebraska, A.B., 1897; A.M., 1898.
Political Economy and Finance, Sociology and Statistics, Political Philosophy.

† Johnson, Margaret Edith . . . . (Bklyn) New York City
Adelphi College, A.B., 1899.
European History, Education.

Jones, Thomas Jesse . . . . Greenfield, O.
Marietta College, A.B., 1897.
Columbia University, A.M., 1899.
Union Theo. Seminary, B.D., 1900.
Sociology and Statistics, Political Economy and Finance.

Jones, William . . . . Sac and Fox Agency, Oklahoma
Harvard University, A.B., 1900.
Anthropology, Psychology, Science of Language.

* Also a candidate for the Higher Diploma, Teachers College.
† Also a candidate for the Secondary Diploma, Teachers College.

Judson, Edith..Montclair, N. J.
Wellesley College, A.B., 1894.
Music.

Kanvar, Charles Hillel...........................(Mhtn) New York City
College of the City of New York, A.B., 1900.
Philosophy, Education, Hebrew.

* **Kaplan, Mordecai Menahem**.......................(Mhtn) New York City
College of the City of New York, A.B., 1900.
Philosophy, Education, Sociology and Statistics.

Kauffman, Warren Leslie................................Yonkers, N. Y.
Bucknell University, Ph.B., 1892.
Chemistry.

Keep, Austin Baxter...............................(Bklyn) New York City
Amherst College, A.B., 1897.
History.

Keiley, Jarvis William............................(Mhtn) New York City
Harvard University, A.B., 1890; A.M., 1899.
English, Philosophy.

* **Kelly, Bernard Hetherington**........................(Br) New York City
New York University, B.S., 1893.
Education.

Kemp, William Cullen Bryant......................(Mhtn) New York City
Columbia University, LL.B., 1896; A.B., 1900.
Constitutional Law, Political Philosophy, International Law.

* **Kent, Ernest Beckwith**..............................Indianapolis, Ind.
Iowa College, A.B., 1894.
Education, Psychology, Sociology, Manual Training.

Kern, Edward Frank....................................Knoxville, Tenn.
University of Tennessee, B.S., 1897.
Chemistry, Geology, Metallurgy.

Kingsbury, Stella Frances.........................(Mhtn) New York City
Columbia University, A.B., 1900.
French.

Kinkeldey, Otto...................................(Mhtn) New York City
College of the City of New York, A.B., 1898.
New York University, A.M., 1900.
Music.

Kinosita, Yetaro...New Berlin, O.
Hiram College, A.B., 1899.
Political Economy and Finance, Sociology and Statistics, Political Philosophy.

Kirkwood, Joseph Edward..........................(Br) New York City
Pacific University, A.B., 1898.
Botany.

* **Knox, Thomas Henry**..............................(Mhtn) New York City
College of the City of New York, B.S., 1888.
Education, Mechanics.

* Also a candidate for the Higher Diploma, Teachers College.

Konno, Tosabura....................................(Mhtn) New York City
University of California, three years.
International Law, Roman Law and Comparative Jurisprudence.

Kresel, Isidor Jacob................................(Mhtn) New York City
Columbia University, LL.B., 1900.
International Law, Roman Law and Comparative Jurisprudence.

Kroeber, Johanna..................................(Mhtn) New York City
Bryn Mawr College, A.B., 1900.
Zoölogy.

Kuntz, Charles.....................................(Mhtn) New York City
Universities of Vienna and Zurich, 1890–94.
Psychology.

Kupfer, Elsie.......................................(Mhtn) New York City
Columbia University, A.B., 1899.
Botany, Zoölogy, Education.

Kupfer, Grace Harriet.............................(Mhtn) New York City
New York University, A.M., 1900.
Comparative Literature.

Lambuth, David Kelley.................................Nashville, Tenn.
Vanderbilt University, A.B., 1900.
English, Sociology and Statistics.

Lau, Robert Julius..................................(Mhtn) New York City
Central Pennsylvania College, A.B., 1900.
Semitic Languages.

Lawrence, George Alfred...........................(Mhtn) New York City
Leland Stanford, Jr., University, A.B., 1892.
Columbia University, M.D., 1895; A.M., 1896.
Zoölogy.

Leonard, Jonathan......................................Sandwich, Mass.
Harvard University, A.B., 1896; A.M., 1897.
French, Romance, Philology, Comparative Literature.

Lewis, Arthur Franklin....................................Leonia, N. J.
Yale University, A.B., 1892.
Sociology and Statistics, Political Economy and Finance.

Locke, Anna Mary.....................................Indianapolis, Ind.
Columbia University, A.B., 1897.
Comparative Literature, English.

Locke, George William.............................(Mhtn) New York City
Boston University, A.B., 1894; B.D., 1894.
Sociology and Statistics.

Logan, Lily..Howardsville, Va.
Tulane University, A.B., 1897.
Columbia University, A.M., 1900.
Chemistry.

Loomis, Clara Denison...................................Yokohama, Japan
Smith College, A.B., 1900.
Philosophy, Logic, Church History.

† Lovett, Mary....................................Red Bank, N. J.
Vassar College, A.B., 1900.
Education, Botany.

Lucke, Charles Edward..............................(Br) New York City
College of the City of New York, B.S., 1895.
New York University, M.S., 1898.
Mechanics.

Ludwig, Henry, Jr..................................(Bklyn) New York City
College of the City of New York, B.S., 1889.
New York University, A.M., 1898.
American History.

Lull, Charles Edward Terry.........................Trenton, N. J.
Lehigh University, B.S., 1900.
Zoölogy, Geology.

Lyman, Rose Clarissa...............................Easthampton, Mass.
Smith College, A.B., 1890.
French.

† Lyon, Amy Lulu...................................(Bklyn) New York City
St. Lawrence University, A.B., 1899.
History, Mathematics.

McAlpin, Edwin Augustus, Jr........................Sing Sing, N. Y.
Princeton University, A.B., 1898.
Sociology and Statistics.

McBee, Croswell....................................Greenville, S. C.
Furman University, A.B., 1898.
University of the South, B.D., 1900.
Sociology and Statistics, Education, Comparative Literature.

McCallum, John Archibald...........................Kingston, Ont.
Queen's University, A.B., 1899.
Sociology and Statistics.

† McConkey, Henry Alexander........................(Mhtn) New York City
Princeton University, A.B., 1890.
Education, Greek.

McCormick, Robert Hall.............................(Mhtn) New York City
Yale University, A.B., 1900.
History, Criminal Law.

McLaughlin, Leo....................................(Mhtn) New York City
St. Francis Xavier's College, A.B., 1895; A.M., 1897.
Columbia University, LL.B., 1888.
Comparative Literature, Latin.

McMahon, Robert Cecil..............................(Bklyn) New York City
Wesleyan University, A.B., 1900.
Greek, Latin.

McMillen, Elizabeth Morton Boyce...................(R) New York City
Columbia University, A.B., 1892.
Greek, Latin, Education.

MacVay, Anna Pearl .... Athens, O.
Ohio University, A.B., 1892.
Greek.

† Also a candidate for the Secondary Diploma, Teachers College.

Macurdy, Grace Harriet....Poughkeepsie, N. Y.
Radcliffe College, A.B., 1888.
Greek.

Magewirth, Julius Otto.... (Br) New York City
College City of New York, A.B., 1898.
English.

Magie, John Ernest....(Mhtn) New York City
College of the City of New York, A.B., 1898.
Columbia University, A.M., 1899.
Philosophy, English, Education.

Maitland, Louise....Stanford University, Cal.
Leland Stanford, Jr., University, A.B., 1898.
Philosophy, Psychology, Education.

Mansfield, Arthur Newhall....(Bklyn) New York City
Massachusetts Institute of Technology, B.S., 1891.
Mechanics.

* Marsh, Horace Wilmer....(Bklyn) New York City
Lafayette College, A.B., 1889; A.M., 1893.
Education, Philosophy.

Martell, Daniel Ernest....Phila., Pa.
McGill University, A.B., 1892.
University of Pennsylvania, A.B., 1898; A.M., 1900.
Music.

* Martin, George Kempton....(Mhtn) New York City
College of the City of New York, B.S., 1893.
Education.

† Mason, Mabel Kincheon....(Mhtn) New York City
Toronto University, A.B., 1898.
French.

Matthews, William Henry....Huntington, Mass.
Williams College, A.B., 1898.
Sociology and Statistics, Political Economy, Finance.

Means, Ellen Goodrich....West Hartford, Conn.
Wellesley College, A.B., 1885.
English, Comparative Literature.

Meeker, Royal....Lawsville Center, Pa.
Iowa State College, B.S., 1898.
Political Economy and Finance, Sociology and Statistics, Political Philosophy.

Miller, Charles Clark....Trenton, N. J.
Princeton University, A.B., 1900.
Sociology and Statistics.

Miller, Franciska....(Mhtn) New York City
Student at Teacher's College, 1894-96; University of Lausanne, 1899; University of Berlin, 1900; University of Geneva, 1900.
Philosophy.

* Also a candidate for the Higher Diploma, Teachers College.
† Also a candidate for the Secondary Diploma, Teachers College.

Miller, James Daniel....................................Greensboro, N. C.
University of North Carolina, Ph.B., 1884.
Graduate P. E. Theol. Seminary of Virginia, 1893.
Education, Sociology and Statistics.

Miller, Joseph Warren, Jr..................................Harrisburg, Pa.
Pennsylvania State College, B.S., 1897.
Columbia University, A.M., 1899.
Mechanics, Mathematics, Astronomy.

Mitchell, Charly Tiffany..........................(Mhtn) New York City
Bryn Mawr, A.B., 1898.
Sociology and Statistics.

Mitchill, Theodore Clarence.......................(Mhtn) New York City
Columbia University, A.B., 1886.
Education, English.

Moffett, Samuel Erasmus..........................(Mhtn) New York City
Columbia University, A.B., 1900.
American History, European History, International Law.

Mohr, Albert Gustav..............................(Mhtn) New York City
College City of New York, A.B., 1895.
Sociology and Statistics, Political Economy and Finance, European History.

Moller, Lillie Evelyn......................................Oakland, Cal.
University of California, B.L., 1900.
Comparative Literature, Philosophy.

Montgomery, William Henry......................Solina, Ontario, Canada
Sociology and Statistics.

Moody, Herbert Raymond.........................(Mhtn) New York City
Massachusetts Institute of Technology, B.S., 1892.
Columbia University, A.M., 1900.
Chemistry.

Moore, Charles Manford.................................Green City, Mo.
William Jewell College, A.B., 1898.
University of Missouri, A.M., 1900.
Mathematics, Astronomy, Mechanics.

Morinaga, Kumematsu....................................Kokura, Japan
Higher Commercial College, Tokio, Japan.
Political Economy and Finance, International Law, Sociology and Statistics.

Mori, Saburo.....................................(Mhtn) New York City
Political Economy.

* Morris, George.................................(Bklyn) New York City
Rutgers College, B.S., 1889.
Education.

Muirhead, John.....................................South Amboy, N. J.
Columbia University, A.B., 1900.
Comparative Literature, English.

Murphy, John Arthur..............................West Hoboken, N. J.
St. Francis Xavier's College, A.B., 1899.
Columbia University, A.M., 1900.
English.

* Also a candidate for the Higher Diploma, Teachers College.

* **Murray, William Smith**....................................Bath, N. Y.
Syracuse University, B.S., 1888; M.S., 1892.
Education, English, History.

Nammack, Elizabeth Frances......................(Mhtn) New York City
Columbia University, A.B., 1895; A.M., 1896.
Latin, Greek.

Natori, Wasaku...Tokio, Japan
Keiogÿiku University, M.A., 1896.
Political Economy and Finance, Sociology and Statistics, Political Philosophy.

Nelson, Leon Maurice..............................(Bklyn) New York City
University of Cincinnati, A.B., 1898.
Hebrew Union College, Rabbi, 1898.
Philosophy, Education.

Newborg, Hilda.......................................(Mhtn) New York City
Columbia University, A.B., 1900.
American History, European History, Political Economy and Finance.

Newcomb, Virginia...................................(Mhtn) New York City
Columbia University, A.B., 1900.
French, Italian, Latin.

* **Nichols, Walter Hammond**.......................(Mhtn) New York City
University of Michigan, B.S., 1891.
American History, European History, Education.

Niezer, Charles Mahlon.................................Monroeville, Ind.
Indiana University, A.B., 1899; LL.B., 1900.
Political Economy and Finance, Criminal Law, Constitutional Law.

Oken, Robert Brenton................................Walla Walla, Wash.
Whitman College, A.B., 1900.
Political Economy and Finance, Sociology and Statistics, Constitutional Law.

Olmstead, Susan Hawley...........................(Mhtn) New York City
University of Minnesota, B.L., 1888.
Education.

Oppenheimer, Adèle.................................(Mhtn) New York City
Radcliffe College, A.B., 1897.
Zoölogy, Botany, Education.

Ornstein, Martha.....................................(Mhtn) New York City
Columbia University, A.B., 1899; A.M., 1900.
Mathematics.

Osborne, Evelyn......................................(Mhtn) New York City
Columbia University, A.B., 1900.
French, Italian, English.

Papaziantz, Mashtotz Vartabed.....................(Mhtn) New York City
Seminary of Armenia, B.D., 1896.
Sociology and Statistics.

Peacock, Daniel Lawrence................................Richmond, Ind.
Earlham College, B.L., 1895.
Sociology and Statistics, Psychology, Anthropology.

* Also a candidate for the Higher Diploma, Teachers College.

Peet, Theodore....................................(Mhtn) New York City
Yale College, A.B., 1877.
German, French.

Penney, Clarence John............................(Mhtn) New York City
College of the City of New York, A.B., 1899.
Music.

Periam, Annina..Newark, N. J.
The Woman's College, Baltimore, A.B., 1898.
German, English.

Perkins, Alice Jane Gray...........................(Mhtn) New York City
Columbia University, A.B., 1898; A.M., 1899.
Latin.

Perkins, Anna Louise...............................(Mhtn) New York City
Vassar College, A.B., 1892.
Music.

Perrin, Ernest Noël.................................(Mhtn) New York City
College of the City of New York, A.B., 1879.
Columbia University, LL.B., 1885.
French, Italian, Romance Philology.

Persons, Frederick Torrel.................................Winsted, Conn.
Yale University, A.B., 1894.
English, Church History.

Phillips, Ulrich Bonnell.................................Milledgeville, Ga.
University of Georgia, A.B., 1897; A.M., 1899.
American History, European History, Political Economy and Finance, Sociology and Statistics.

* Pilgrim, Yancy Calhoun..................................Kearny, N. J.
Lafayette College, Ph.D., 1889; M.S., 1892.
Education, English.

Powell, Charles Samuel...............................Minneapolis, Kan.
Kansas State University, A.B., 1897.
Mathematics, Economics.

Pretzfeld, Charles J...............................(Mhtn) New York City
Columbia University, A.B., 1898; A.M., 1900.
Chemistry.

Priest, Mary Charlotte...............................Washington, D. C.
Columbia University, A.B., 1893.
Comparative Literature, English, Education.

Prokesch, Salomon Zuscha.........................(Mhtn) New York City
New York University, Ph.B., 1900.
Philosophy, Education, Hebrew.

* Pugliese, Anthony...............................(Mhtn) New York City
College of the City of New York, B.S., 1897.
Education.

Putnam, Bertha Haven.............................(Mhtn) New York City
Bryn Mawr College, A.B., 1893.
Political Economy and Finance.

* Also a candidate for the Higher Diploma, Teachers College.

Quackenbos, George Payn..........................(Mhtn) New York City
Columbia University, A.B., 1900.
Latin, Greek, Sanskrit.

Quackenbush, Leopold Schuyler......................(Mhtn) New York City
Yale University, Ph.B., 1899.
Zoölogy, Geology, Botany.

Radin, Max......................................(Mhtn) New York City
College of the City of New York, A.B., 1899.
Greek.

* Rafferty, William B.................................(R) New York City
St. Lawrence University, A.B., 1890.
Education.

† Raiman, Robert Insall...........................(Bklyn) New York City
Columbia University, A.B., 1900.
English, Education, European History.

Rainsberger, George Earl..................................Madison, N. J.
Scio College, A.B., 1898.
Taylor University, Ph.D., 1900.
Philosophy.

Rauck, Clayton Haverstick..................................Lancaster, Pa.
Franklin and Marshall College, A.B., 1898.
Sociology and Statistics.

Read, Elizabeth Fisher............................(Bklyn) New York City
Smith College, B.L., 1896.
Columbia University, A.M., 1899.
German, English.

Read, Marion Pugh ....(Bklyn) New York City
Smith College, B.L., 1898.
German, English.

Reiley, Katharine C...............................(Mhtn) New York City
Vassar College, A.B., 1891.
Latin.

* Reynolds, James Joseph ....(Mhtn) New York City
College of the City of New York, 1893.
New York University, LL.B., 1897.
Education, Psychology.

Riederer, Herman S...............................(Mhtn) New York City
College of the City of New York, B.S., 1898.
Chemistry, Physics.

Robertson, Harold Eugene..............................Red Wing, Minn.
Carleton College, A.B., 1899.
Philosophy, Psychology, Education.

Rockwell, Harriet Ellen.................................Honesdale, Pa.
Elmira College, B.S., 1890.
English, European History.

* Also a candidate for the Higher Diploma, Teachers College.
† Also a candidate for the Secondary Diploma, Teachers College.

Rogers, Austin Flint....................................Kansas City, Mo.
University of Kansas, A.B., 1899; A.M., 1900.
Mineralogy, Geology, Chemistry.

Rollins, Frank....................................(Mhtn) New York City
Wesleyan University, A.B., 1899.
Education, Sociology and Statistics, Psychology.

Root, Lydia Fidelia....................................Skaneateles, N. Y.
Cornell University, A.B., 1896.
Latin.

Roovers, Edgar Walter ....(Bklyn) New York City
Harvard University, A.B., 1899.
German, Latin.

Rubinow, Isaac Max...............................(Mhtn) New York City
Columbia University, A.B., 1895.
New York University, M.D., 1898.
Political Economy and Finance.

*Rux, S. Harry ....(Mhtn) New York City
College of the City of New York, B.S., 1888.
Mechanics.

St. Clair, Harry Hull............................Nyack-on-Hudson, N. Y.
Columbia University, A.B., 1900.
Indo-Iranian, Anthropology, Syriac.

Salant, Louis...(Mhtn) New York City
College of the City of New York, A.B., 1898.
Greek.

Salant, William.....................................(Mhtn) New York City
Cornell University, B.S., 1894.
Columbia University, M.D., 1899.
Physiology.

Schley, Grant Borney, Jr...........................(Mhtn) New York City
European History, American History, Political Economy and Finance.

Schuyler, Montgomery, Jr..........................(Mhtn) New York City
Columbia University, A.B., 1899; A.M., 1900.
Indo-Iranian, Rumanian.

Scott, Cora Arnot..................................(Mhtn) New York City
Columbia University, A.B., 1900.
Physics.

Scott, George Gilmore....................................Geneseo, N. Y.
Williams College, A.B., 1898; A.M., 1899.
Zoölogy, Physiology, Botany.

Sears, Charles Hatch...............................(Mhtn) New York City
Colgate University, A.B., 1898.
Columbia University, A.M., 1900.
Sociology and Statistics.

Seelye, Finette Scott...............................(Mhtn) New York City
Smith College, B.L., 1890.
Physics, Chemistry, Zoölogy.

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* Also a candidate for the Higher Diploma, Teachers College.

* Shafer, Harry Martin..Eureka, Ill.
Eureka College, B.S., 1887; M.S., 1890.
Harvard University, A.B., 1899; A.M., 1900.
Education, Psychology.

Shanks, Lewis Edgar Pinget.............................Greenwich, N. Y.
Cornell University, Ph.B., 1899.
French, Italian, Education.

Shannahan, Willard D................................Green Island, N. Y.
Williams College, A.B., 1896.
International Law.

* Shaw, Ira Dennison.............................(Mhtn) New York City
State Normal School, Randolph, Va., 1890.
Oberlin College, A.B., 1898.
Education, English.

Shear, Theodore Leslie............................(Mhtn) New York City
New York University, A.B., 1900.
Latin, Greek.

Shepard, Elmer Irwin...Winona, Minn.
Williams College, A.B., 1900.
Chemistry, Mathematics, Education.

Shepherd, Robert Perry................................Bowling Green, O.
Hiram College, A.B., 1895; A.M., 1896.
Political Economy and Finance, Sociology and Statistics, Political Philosophy.

Simpson, Edna Bell......................................Beaver Falls, Pa.
Geneva College, A.B., 1899.
Columbia University, A.B., 1900.
Comparative Literature, German.

Sinclair, Upton Beall, Jr.............................(Mhtn) New York City
College of the City of New York, A.B., 1897.
English, Philosophy.

Slater, Florence Wells............................(Mhtn) New York City
Cornell University, B.S., 1900.
Botany, Zoölogy.

Smith, Anna Hemens...Collamer, N. Y.
Syracuse University, A.B., 1889.
Radcliffe College, A.M., 1898.
Education.

Smith, William Roy..Austin, Tex.
University of Texas, A.B., 1897; A.M., 1898.
American History, European History, Political Economy and Finance.

* Smith, William Walter.........................(Mhtn) New York City
Princeton University, A.B., 1889; A.M., 1892.
General Theological Seminary, N. Y., 1892.
Columbia University, M.D., 1895.
Education, Psychology.

*Snow, Louis F....................................(Mhtn) New York City
Brown University, Ph.B., 1887.
Harvard University, A.B., 1889; A.M., 1890.
Education, English.

* Also a candidate for the Higher Diploma, Teachers College.

Solomon, Elias Louis..(Mhtn) New York City
College of the City of New York, A.B., 1900.
Philosophy, Hebrew, Education.

Spaulding, Edward Gleason..Burlington, Vt.
Columbia University, A.M., 1896.
Bonn University, Ph.D., 1900.
Philosophy.

* Spaulding, Frank Benton..........................(Bklyn) New York City
State Normal School, Potsdam, N. Y., 1887.
St. Lawrence University, B.S., 1895.
Education, Physics.

Spaulding, Leila Clement..........................(Mhtn) New York City
Vassar College, A.B., 1899.
Greek, Latin.

Spencer, Charles Worthen..................................Hamilton, N. Y.
Colby College, A.B., 1890.
American History, European History, International Law.

Spencer, Henry Russell..................................Skowhegan, Me.
Colby College, A.B., 1899.
American History, European History, Political Economy and Finance.

Sperry, Earl Evelyn..................................Syracuse, N. Y.
Syracuse University, Ph.B., 1898.
European History, American History, International Law.

* Springmeyer, Charles Edwin......................(Mhtn) New York City
College of the City of New York, A.B., 1897.
Education.

Stephens, Julia Ward..........................(Mhtn) New York City
Vassar College, A.B., 1893.
Latin.

Stern, Nathan..........................(Mhtn) New York City
Columbia University, A.B., 1898; A.M., 1899.
Hebrew, Arabic, Syriac.

Stevens, Clarence Dimick..................................Vevay, Ind.
Wabash College, Ph.B., 1894; A.M., 1900.
Comparative Literature, German.

Stoddart, Charles William..................................Yonkers, N. Y.
Columbia University, A.B., 1900.
Chemistry, English.

Stoeckius, Alfred..........................(Mhtn) New York City
Columbia University, A.M., 1900.
German, English.

Stoops, John Dashiell..........................(Mhtn) New York City
Dickinson College, A.B., 1894.
Harvard University, A.M., 1897.
Boston University, Ph.D., 1899.
Philosophy.

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* Also a candidate for the Higher Diploma, Teachers College.

Straus, Sara....................................(Mhtn) New York City
Columbia University, A.B., 1900.
Sociology and Statistics, International Law, American History.

* Suedden, David Samuel.......................................Griffin, Cal.
St. Vincent's College, A.B., 1890.
Leland Stanford, Jr., University, A.B., 1897.
Education, Psychology, Sociology and Statistics.

Sumner, Anne Porter...............................(Mhtn) New York City
Columbia University, A.B., 1897.
Greek.

Sumner, Francis Bertody.........................(Mhtn) New York City
University of Minnesota, B.S., 1894.
Physiology.

Swan, Giles John...................................(Mhtn) New York City
College of the City of New York, A.B., 1897.
Education.

Taber, Marion Russell............................(Mhtn) New York City
Bryn Mawr College, A.B., 1897.
Sociology and Statistics.

† Taber, Mary Alice..................................Mt. Vernon, N. Y.
Vassar College, A.B., 1898.
Physical Science.

Thompson, Holland....................................Statesville, N. C.
University of North Carolina, Ph.B., 1895.
Columbia University, A.M., 1900.
Political Economy and Finance, Sociology and Statistics, American History.

Thorsen, Carolius Canfield..............................Milwaukee, Wis.
Vassar College, A.B., 1880.
Sociology and Statistics, History.

Tolman, Gilbert..Milo, Me.
University of Maine, B.M.E., 1896.
Physics, Geology, Mechanics.

Torrance, Flora Chapman...............Nepperhan Station, Yonkers, N. Y.
Cornell University, Ph.B., 1893; Ph.M., 1894.
American History.

Torrey, Harry Beal..Berkeley, Cal.
University of California, B.S., 1895; M.S., 1898.
Zoölogy, Physiology.

Torrey, John Cutler......................................Burlington, Vt.
University of Vermont, A.B., 1898.
Zoölogy, Botany, Physiology.

Tracy, Ellsworth Morton...............................Waterbury, Conn.
Trinity College, A.B., 1900.
English.

* Also a candidate for the Higher Diploma, Teachers College.
† Also a candidate for the Secondary Diploma, Teachers College.

Trowbridge, Edwin Kellogg........................(Mhtn) New York City
Williams College, A.B., 1899.
Columbia University, A.M., 1900.
Physics, Mineralogy, Chemistry.

* Tucker, Louise Emery............................(Bklyn) New York City
Adelphi College, A.B., 1900.
Education, Philosophy.

Tucker, Samuel Marion...............................Spartanburg, S. C.
Wofford College, A.B., 1896.
English, Comparative Literature.

Van Horne, Katherine.................................Jersey City, N. J.
Columbia University, A.B., 1900.
French.

Voorhees, John Brownlee..........................(Mhtn) New York City
Rutgers College, A.B., 1896; A.M., 1899.
Sociology and Statistics.

* Wade, John Edgar..................................(Mhtn) New York City
College of the City of New York, B.S., 1897.
Education.

Walker, Martin..(Br) New York City
Graduate, Concordia College, St. Louis.
European History, Philosophy, American History.

Wallace, Emma Frances...................................Peekskill, N. Y.
Vassar College, A.B., 1892.
European History, American History, Education.

Warren, Ulysses Grant.....................................Mahopac, N. Y.
Syracuse University, Ph.B., 1896.
Philosophy, English.

* Watson, Lake George....................................Richmond, Ind.
Earlham College, Ph.B., 1900.
Education, German.

† Watt, Martha Wilbur............................(Mhtn) New York City
Brown University, Ph.B., 1900.
Education, Philosophy, Mathematics.

Watters, Leon Laizer...............................Salt Lake City, Utah
University of Utah, B.S., 1897.
Columbia University, A.M., 1898.
Chemistry, Physics.

Webster, Carlos Green............................(Mhtn) New York City
Buchtal College, B.S., 1894.
Education.

Weller, Le Roy..Madison, N. J.
Wesleyan University, A.B., 1899.
English.

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* Also a candidate for the Higher Diploma, Teachers College.
† Also a candidate for the Secondary Diploma, Teachers College.

‡**Wells, Herman Jay**..............................(Bklyn) New York City
Williams College, A.B., 1887.
Philosophy.

Wells, John Edwin.................................... Philadelphia, Pa.
Swarthmore College, B.L., 1896; M.L., 1899.
Columbia University, A.M., 1900.
English, Germanic Languages and Literatures.

Whitaker, Albert Concer..........................(Mhtn) New York City
Leland Stanford, Jr., University, A.B., 1899.
Political Economy and Finance, Sociology and Statistics, Administrative Law, Roman Law and Comparative Jurisprudence.

White, Charles Browning...........................(Mhtn) New York City
Harvard University, A.B., 1896.
Sociology and Statistics, Political Economy, Church History.

White, Lynn Townsend.................................Knoxville, Tenn.
University of Tennessee, A.B., 1897.
Sociology and Statistics, Education.

Whitin, Frederick H...............................(Bklyn) New York City
American History, Political Economy and Finance.

Wilcox, Maude.......................................Yonkers, N. Y.
Columbia University, A.B., 1897; A.M., 1898.
Sociology and Statistics.

Willard, Nelson Wolcott...............................Galesburg, Ill.
Knox College, A.B., 1896; A.M., 1899.
Harvard University, A.B., 1898.
Greek, Latin.

Willett, Allan Herbert............................(Mhtn) New York City
Brown University, A.B., 1886.
Political Economy.

Williams, James Michel.................................Waterville, N. Y.
Brown University, A.B., 1898.
Sociology and Statistics, Political Economy and Finance, European History.

Williams, John....................................(Mhtn) New York City
Trinity College, A.B., 1890; A.M., 1893.
Philosophy, Anthropology.

Willmarth, Elmer Humphrey............................Middlebury, Vt.
Worcester Polytechnic Institute, B.S., 1897.
Education.

Wilson, John Henry................................(Mhtn) New York City
St. Stephen's College, A.B., 1896; A.M., 1899.
St. Francis Xavier's College, A.M., 1898.
New York University, A.M., 1898.
Education.

Winter, Alpheus, Jr...............................(Mhtn) New York City
Centre College, Kentucky, A.B., 1899.
Columbia University, A.M., 1900.
American History, European History, Constitutional Law.

‡ Also a candidate for the Elementary Diploma, Teachers College.

Wissler, Clark..................................Columbus, O.
Indiana University, A.B., 1897; A.M., 1899.
Psychology, Education, Anthropology.

Wolf, Nathan..................................(Mhtn) New York City
New York University, Ph.B., 1900.
Philosophy, Semitics, Education.

Wolff, Gertrude..................................(Mhtn) New York City
Columbia University, A.B., 1896.
Latin.

Wolff, Samuel Lee..................................(Mhtn) New York City
Harvard University, A.B., 1892.
Columbia University, A.M., 1895; LL.B., 1896.
Comparative Literature, English.

Wollmann, Conrad..................................(Mhtn) New York City
New York Law School, LL.B.
Latin, Greek, French.

Wood, Alice Ida..................................(Mhtn) New York City
Wellesley College, B.S., 1894.
Education, Comparative Literature.

Wood, Elizabeth C...................................(Mhtn) New York City
Allegheny College, A.B., 1889.
American History, European History, Education.

Wood, Loren Newton..................................Arvilla, N. D.
Carleton College, B.S., 1899.
Administrative Law, International Law, Political Economy and Finance.

Woodhull, Marianna..................................(Mhtn) New York City
Smith College, A.B., 1887.
Comparative Literature.

Woolley, Edwin Campbell..................................Chicago, Ill.
University of Chicago, A.B., 1898.
Administrative Law, Constitutional Law, Political Economy and Finance, European History.

Wright, Harrison King..................................Pulaski, N. Y.
Union College, A.B., 1899.
Philosophy, Greek, Church History.

Wright, Mabel..................................(Bklyn) New York City
Wellesley College, A.B., 1900.
Mathematics, Mechanics.

Yohannan, Isaac..................................(Mhtn) New York City
Columbia University, A.B., 1897; A.M., 1899.
Hebrew, Syriac, Greek.

Youtz, Lewis Addison..................................Des Moines, Ia.
Simpson College, Ph.B., 1890; Ph.M., 1893.
Chemistry, Mineralogy.

† **Zeiger, Franklin**..................................Montclair, N. J.
Columbia University, A.B., 1898; A.M., 1900.
Education.

† Also a candidate for the Secondary Diploma, Teachers College.

Ziegler, Charles E. ....(Mhtn) New York City
College City of New York, A.B., 1898.
English.

* Zollinhofer, Sophie.................................(Bklyn) New York City
Teachers College, 1897.
Adelphi College, A.B., 1899.
Education.

SUMMARY

STUDENTS PRIMARILY REGISTERED UNDER THESE FACULTIES §		412
STUDENTS FROM OTHER FACULTIES OF THE UNIVERSITY:		
Seniors in the College	78	
From the School of Law	61	
From the School of Medicine	27	
From the Schools of Applied Science	16	
		182
STUDENTS FROM TEACHERS COLLEGE (not candidates for Ph.D. or A.M. Degrees)		18
TOTAL		612

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* Also a candidate for the Higher Diploma, Teachers College.

§ Of these, 54 students are also registered in Teachers College.

BARNARD COLLEGE

TRUSTEES

Abram S. Hewitt, LL.D., *Chairman*
Mrs. A. A. Anderson, *Vice-Chairman*
Edward W. Sheldon, *Secretary*
George A. Plimpton, *Treasurer*

Miss Helen Dawes Brown
Silas B. Brownell, LL.D.
Mrs. William C. Brownell
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Miss Florence Colgate
Frederic R. Coudert, LL.D.
Rev. William M. Grosvenor, D.D.
Frederick B. Jennings
Franklin B. Lord
Seth Low, LL.D.
Hamilton W. Mabie, L.H.D.
Mrs. Alfred Meyer
Mrs. Henry F. Osborn
Mrs. George Haven Putnam
Mrs. Henry M. Sanders
George W. Smith
Mrs. James S. T. Stranahan
Mrs. James Talcott
Frederick S. Wait
Everett P. Wheeler

Officers of Administration

N. W. Liggett,* A.B., *Bursar*

Susan Grimes Walker, A.B., *Head of Fiske Hall*

Elizabeth Metcalf, *Secretary to the Dean*

Anna E. H. Meyer, A.B., *Assistant Secretary to the Dean*

THE FACULTY

Seth Low, LL.D., *President*

James Harvey Robinson, Ph.D., *Acting Dean*

Thomas R. Price, M.A., LL.D., *Professor of the English Language and Literature*
Edwin R. A. Seligman, Ph.D., *Professor of Political Economy and Finance*
Herbert L. Osgood, Ph.D., *Professor of History*
William Hallock, Ph.D., *Adjunct Professor of Physics*
George Rice Carpenter, A.B., *Professor of Rhetoric and English Composition*

FRANKLIN HENRY GIDDINGS, Ph.D., *Professor of Sociology*
JOHN B. CLARK, Ph.D., *Professor of Political Economy*
JAMES RIGNALL WHEELER, Ph.D., *Professor of Greek*
FRANK N. COLE, Ph.D., *Professor of Mathematics*
JAMES HARVEY ROBINSON, Ph.D., *Professor of History*
CALVIN THOMAS, A.M., *Gebhard Professor of the Germanic Languages and Literartues*
CARLO LEONARDO SPERANZA, A.M., B. ès L., *Adjunct Professor of the Romance Languages and Literatures*
WILLIAM P. TRENT, M.A., LL.D., *Professor of English Literature*
MORTIMER LAMSON EARLE, Ph.D., *Professor of Classical Philology*
NELSON GLENN MCCREA, Ph.D., *Adjunct Professor of Latin*
HERBERT G. LORD, M.A., *Professor of Philosophy*

Other Officers of Instruction

ARTHUR MORGAN DAY, A.M., *Instructor in Political Economy and Social Science*
WILLIAM TENNEY BREWSTER, A.M., *Instructor in Rhetoric*
HERBERT MAULE RICHARDS, S.D., *Instructor in Botany*
HENRY E. CRAMPTON, Ph.D., *Instructor in Zoölogy*
CHARLES KNAPP, Ph.D., *Instructor in Classical Philology*
MARGARET E. MALTBY, Ph.D., *Instructor in Chemistry*
WILLIAM S. DAY, Ph.D., *Tutor in Physics*
HENRY JAGOE BURCHELL, Jr., A.M., *Tutor in Classical Philology*
LOUISE BRISBIN DUNN, A.M., *Tutor in Botany*
EDWARD KASNER, Ph.D., *Tutor in Mathematics*
RUDOLF TOMBO, Sr., Ph.D., *Tutor in German*
ADA WATTERSON, A.M., *Assistant in Zoölogy and Botany*
GRACE ANDREWS, A.M., *Assistant in Mathematics*
WILHELM ALFRED BRAUN, A.B., *Assistant in German*
JEANNETTE BLISS GILLESPY, A.B., *Assistant in Rhetoric*
ELEANOR KELLER, A.B., *Assistant in Chemistry*
VIRGINIA CROCHERON GILDERSLEEVE, A.M., *Assistant in Rhetoric*
HENRY BARGY, A.M., *Lecturer in the Romance Languages and Literatures*
WILLIAM A. NITZE, Ph.D., *Lecturer in the Romance Languages and Literatures*
CHARLES LEE RAPER, A.B., *Lecturer in History*

For other officers of the University who may give instruction to students of Barnard College, consult the several departmental statements.

In 1883 the Trustees of Columbia College offered degrees to women who should be able to pass the necessary examinations, without, however, providing instruction for them. The resulting system, called *The Collegiate Course for Women*, proved unsatisfactory to both parties. It was found necessary to provide instruction for women which should be identical with or equivalent to that provided by Columbia for men, and in 1889 Barnard College was organized with this purpose in view.

For eleven years it duplicated for women as far as possible the curriculum of Columbia College, and also registered for graduate work under the University Faculties women who held the bachelor's degree from institutions of good standing. Its instructors were members of the University staff. Examinations for entrance to Barnard College, those given in course and those for degrees, were conducted by Columbia University. During the first three undergraduate years separate instruction was given to women; in the Senior year they were admitted to certain courses in the University. Graduate students attended many courses at Columbia University under the Faculties of Philosophy and Political Science. Under the Faculty of Pure Science, lecture courses only were open at the University, laboratory work being done at Barnard College.

However, Barnard's numerical growth has for several years past made inappropriate the informal arrangement for instruction which was the natural method at the outset. Its students form a considerable fraction of the total number of undergraduates under the care of Columbia instructors, and the graduates registered through Barnard have had an appreciable effect upon the university statistics. It became necessary to recognize formally the status which had gradually come into existence, and accordingly an agreement was this past year entered into by which Barnard is included in the university system. Its experience in relation to Columbia has differed widely from that of any other affiliated college in relation to its university. The gradual *rapprochement* consummated in the agreement signed last January has proceeded without check. Barnard is an independent college for women, with a corporation and a faculty of its own, vested with all the powers commonly belonging to such bodies. At the same time, it shares the library, the instruction, and the degrees of Columbia University.

A more exact idea of the relations between Barnard College and Columbia University is given by the following résumé of the agreement above-mentioned.

According to the agreement made January 19, 1900, between the Trustees of Columbia University and Barnard College, for the purpose of incorporating Barnard College, a college for women, in the educational system of the University, it is provided:

That the President of the University shall be, *ex officio*, President of Barnard College and a Trustee of Barnard College. He shall preside at the meetings of the Faculty of Barnard College and shall have general supervision and direction of the educational administration of such College as in the other schools of the University.

That the internal administration of Barnard College shall be conducted by a Dean, who shall be appointed by the President of the University, by and with the advice and consent of the Trustees of Barnard College. In the absence of the Dean, an Acting Dean may be appointed by the President.

That Barnard College shall be represented in the University Council of Columbia University by its Dean, who shall have the right to vote in the University Council upon all questions. The Faculty of Barnard College shall consist of the President, the Dean, and all the professors on the staff of the University who give instruction in Barnard College.

That Barnard College shall provide for and maintain such officers of instruction as may, from time to time, be agreed on. Such officers shall be nominated by the Dean of Barnard College, with the approval of the Trustees of Barnard College and of the President of the University, and shall be appointed and reappointed by the University according to its custom. Their standing shall be the same in all respects as that of other like officers in the University. For all services rendered in the University by officers so appointed an equivalent amount of service shall be rendered in Barnard College by other officers of the University of like grade, as may be determined from time to time, with the consent of the officers concerned, by the Dean of the College and the President of the University.

That members of the Faculty of Barnard College may be either men or women.

That, on and after July 1, 1904, all of the instruction for women leading to the degree of Bachelor of Arts shall be given separately in Barnard College. Barnard College will assume as rapidly as possible all of the instruction for women in the Senior year, without regard to the time limit contained in this section, and undertakes to maintain every professorship established at its instance, so long as the services of the incumbent thereof or an equivalent therefor shall be rendered in Barnard College; and when Barnard College has adequately provided for its undergraduate work, it will, as its means allow, establish additional professorships in the University, upon foundations providing for courses which shall be open to men and women, to the end that opportunities for higher education may be enlarged for both men and women.

That the University will accept women who have taken their first degree on the same terms as men, as students of the University, and as candidates for the degrees of Master of Arts and Doctor of Philosophy under the Faculties of Philosophy, Political Science, and Pure Science, in such courses as have been or may be designated by these Faculties, with the consent of those delivering the courses, and will make suitable provision for the oversight of such women. The University will confer the degree of Bachelor of Arts upon the students of Barnard College who shall have satisfactorily fulfilled in Barnard College the requirements of the University Statutes for that degree. The courses in Barnard College leading to the degree of Bachelor of Arts shall be determined and administered by its own Faculty, and all examinations for admission to Barnard College and in course shall be conducted under the authority of the Faculty of Barnard College. The diploma shall be signed by the President of the University and by the Dean of Barnard College. The degree of Bachelor of Arts conferred upon the graduates of Barnard College shall be maintained at all times as a degree of equal value with the degree of Bachelor of Arts conferred upon the graduates of Columbia College. The equivalency of the two degrees shall be maintained in such manner as the University Council may prescribe.

That, so long as this agreement is in force, Barnard College shall grant no degrees. It shall retain the right to grant certificates to students not candidates for a degree, and it shall exercise all other corporate rights and powers which are not delegated to the University by this agreement. But this agreement shall not be deemed a surrender by Barnard College of any powers conferred upon it by charter.

That Barnard College shall retain its separate corporate organization, and that the Trustees of Barnard College shall continue to provide for the financial support thereof.

That the library of the University shall be open to all women students of the University and of Barnard College upon the same terms as to men.

By the terms of an agreement between Columbia University and Barnard and Teachers Colleges, students of Teachers College are permitted to attend courses in Barnard College. This institution offers reciprocal advantages to the students of Barnard College. Courses which are counted toward a Teachers College diploma and are open to Seniors in Columbia College are also open to Seniors of Barnard College.

ADMISSION

The Committee on Admissions has charge of everything relating to this subject.

All students, with the exception specified below, must have passed the examination for matriculation.

Candidates for the bachelor's degree must have fulfilled the requirements for admission, below, and must conform to the regulations governing the course of study leading to the degree of Bachelor of Arts. (For particulars see the Announcement of Barnard College.) Students who do not wish to proceed to a degree are enrolled as special students; they will, however, in the event of a change of plan, be credited with such of their courses as may coincide with the courses leading to a degree.

Special students may be admitted to courses in music without examination in other subjects.

Candidates for admission to the Freshman class must, at the time of matriculation, be at least fifteen years of age; and for admission to advanced standing a corresponding increase of age is required; but exceptions to this rule may be made when, in the opinion of the Committee on Admissions, there are sufficient reasons to justify them.

Every candidate must, before admission, present a certificate of good moral character from her last teacher, or from some citizen in good standing, and students from other institutions must bring certificates of honorable dismission.

Every candidate for admission to the Freshman class is required at the entrance examinations to offer subjects amounting to fifteen (15) points* as indicated below.

The candidate *must* offer

English (page 18)........................	counting 3 points
Elementary Latin (page 23)..............	" 4 "
Elementary Mathematics (page 24)........	" 3 "

The candidate may offer any of the following subjects without other restriction than that to offer an advanced subject will involve offering the corresponding elementary subject as well:

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* The several subjects are stated in terms of units; the unit is a course of five periods weekly throughout an academic year of the preparatory school; the subjects are assigned units in accordance with the time required to prepare adequately upon them for college entrance.

Elementary Greek (page 21)	counting	3	points
Elementary History (page 22)	"	1	point
Advanced Latin (page 24)	"	1	"
Advanced Greek (page 22)	"	1	"
Advanced French (page 20)	"	1	"
Advanced German (page 20)	"	1	"
Advanced History (page 22)	"	1	"
Advanced Mathematics (page 25)	"	1	"
Advanced Physics (page 25)	"	1	"

The candidate may offer not more than 4 points in all from the three subjects following:

Elementary French (page 19)	counting	2	points
Elementary German (page 20)	"	2	"
Spanish (page 26)	"	2	"

The candidate may offer not more than 2 points in all from the five subjects following:

Elementary Physics (page 25)	counting	1	point
Chemistry (page 17)	"	1	"
Botany (page 17)	"	1	"
Physiography (page 26)	"	1	"
Zoölogy (page 26)	"	1	"

The definitions of the requirements in each subject as well as the regulations governing the filing of applications for entrance examinations and the division of examinations are the same at Barnard College as at Columbia (pp. 17 *ff*). The examinations are held on the days and at the hour stated on page 15, at Barnard College.

Admission on Certificates

Barnard College accepts, in lieu of its entrance examinations, no credentials of any sort except the Regents' Academic Diploma* and the certificates of universities and colleges in good standing. These credentials are accepted only for the ground which they specifically cover.

All certificates offered in lieu of entrance examinations must be sent to the chairman of the Barnard College Committee on Admissions, at least one week before the first day of the entrance examinations. The names of those candidates whose certificates are accepted in whole or in part will be posted on the Bulletin Board at least one day in advance of the beginning of the examinations.

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* Every Regents' Academic Diploma is considered as covering the entrance requirement in English. No Regents' Academic Diploma will be accepted in lieu of the entrance examination in French unless it covers the complete three-years high-school course in French recognized by the Regents. Similarly, no Regents' Academic Diploma will be accepted in lieu of the entrance examination in German unless it covers the complete three-years high-school course in German. A Regents' Academic Diploma, to be accepted in lieu of all parts of the examination in Latin or of the examination in Greek, must specifically cover, among other things, sight reading and prose composition. In the case of the natural sciences, a Regents' Academic Diploma will not be accepted for the required laboratory work. No diploma granted more than two years before the applicant presents herself for matriculation will be accepted.

The separate pass-cards, the Academic Equivalent Certificate, and the several other certificates issued by the Regents of the State of New York, are not accepted by the College in lieu of the examinations.

The certificates of the preparatory or high-school departments of universities and colleges are not accepted by the College.

Candidates must take the regular entrance examinations in the subjects in which their certificates are not deemed adequate.

Report of Entrance Examinations

The Committee on Admissions will report to the Dean not later than one week after the conclusion of the entrance examinations in June the names of those candidates who, having passed a satisfactory examination, may be admitted with or without conditions, of those who must present themselves for re-examination in September, and of those who have been rejected.

The Committee on Admissions will report to the Dean not later than one week after the conclusion of the entrance examinations in September the names of those candidates who, upon a final showing, may be admitted with or without conditions, and of those who have been rejected.

Except for reasons of weight, satisfactory to the Committee on Admissions, the results of an entrance examination will not be allowed to stand to the credit of a candidate for a longer period than sixteen months.

Admission to Advanced Standing

Candidates for admission from other colleges, and those desiring to be admitted to advanced standing on examination, must make application in writing to the Barnard College Committee on Admissions. Proper blanks for the purpose may be obtained from the Dean's Secretary. The application should be made at least one week before the first day of the September entrance examinations

Every candidate for admission to advanced standing must show that she has attained proficiency in the equivalent of

1. The requirements for admission to the Freshman class.
2. All the prescribed studies already pursued by the class to which she seeks admission.
3. As many elective studies as she would have pursued if she had entered the class at the beginning of the Freshman year.

A candidate may be admitted notwithstanding deficiencies in some of these studies, but no candidate will be recommended for the A.B. degree until she shall have brought all her studies up to the point required for that degree.

Every candidate from another college is required to furnish official statements of her record in her various college studies, and letters or other evidence showing the opinion of her instructors in regard to her scholarship and character. She should also submit a catalogue or announcement of the college that she leaves, in which are plainly marked every requirement for admission and every course of instruction for which she has received credit.

No applicant will be allowed to enter the Senior class as a candidate for the degree of Bachelor of Arts after October 15 in any year.

SCHOLARSHIPS AND PRIZES

Trustees' Competitive Scholarship

A scholarship of $150 is awarded annually to the student who is examined at the College in June and passes the best complete entrance examination in all subjects. The papers of the students who pass free from conditions are examined by the committee of the Faculty on Admissions, and the student whose papers as a whole entitle her to the first rank is awarded the scholarship.

Brooklyn Scholarships

Twelve scholarships, founded by the Trustees of Columbia University in 1895, in recognition of the gift to Columbia University by President Low of a memorial building for the Library, are open for competition to candidates for admission to Barnard College who are residents of Brooklyn, N. Y., and have received their training in either the public or the private schools of that borough. Three of these scholarships are awarded annually to the three qualified competitors who are examined in Barnard College in June and pass complete entrance examinations in all subjects. The papers of the competitors who pass without conditions will be examined by the committee of the Faculty on Admissions, and the three students whose papers as a whole are entitled to the highest rank will receive the scholarships.

Each scholarship entitles its holder to receive the sum of $150 per annum during the college course; but if she fail to maintain a standing of at least grade C in all of the courses pursued by her, or if she commit any breach of good order, she shall forfeit the scholarship.

Should any recipient desire, she may, while still retaining the title "Brooklyn Scholar," transfer to any properly qualified candidate from Brooklyn the income from the scholarship; and such action on her part will not be made a matter of public record.

All persons intending to compete for these scholarships must submit satisfactory certificates of character and proficiency from the schools which they have last attended, and must state in writing that it is their intention to spend at least one year at Barnard College.

Ella Weed Scholarship

A scholarship of $150, founded in memory of Miss Ella Weed by past and present pupils of Miss Anne Brown's School, is awarded annually to a student who needs and deserves assistance.

Veltin School Scholarship

A scholarship of $150, given by the alumnæ of Mlle. Veltin's School, is awarded annually on the same conditions as the Ella Weed Scholarship.

Mrs. Donald McLean Scholarship

A scholarship of $150, founded by the New York Chapter of the Daughters of the American Revolution, is awarded to a student who needs and deserves it, and who agrees to pursue the study of history (chiefly that of the United States) continuously throughout her course.

Jennie B. Clarkson Scholarship

A scholarship of $150, founded in 1898 by Mrs. W. R. Clarkson, is awarded annually to a student who deserves assistance.

Lucille Pulitzer Scholarship

A fund of $10,000 was given in 1899 by Joseph Pulitzer, Esq., to establish a scholarship in memory of his daughter Lucille Pulitzer. The annual income of the fund is applied to the use of the holder of the scholarship, which is awarded by the Trustees to the undergraduate student entering the College from the city of New York who is found to have passed the best examinations and to have shown herself to be most worthy in every way.

Emily James Smith Scholarship

This scholarship was founded in 1899 by Miss Emily H. Bourne in honor of the Dean of the College. It is awarded annually at the discretion of the founder in conference with the representatives of the College.

Anna E. Barnard Scholarship

This scholarship was founded in 1899 by Miss Emily H. Bourne in honor of her sister, Mrs. General John G. Barnard. It is awarded annually on the same terms as the Emily James Smith Scholarship.

The Brearley School Scholarship

A scholarship of $150, given in 1899 by pupils and former pupils of the Brearley School, will be awarded annually to a student who deserves assistance.

Fiske Graduate Scholarship

A scholarship of $250, founded by Mrs. Josiah M. Fiske, will be awarded annually to the most satisfactory graduate student in Political Science. Applications should be filed before April 1 with the Dean of Barnard College. Blanks for the purpose may be obtained on application to the Dean's Secretary.

Herrman Botanical Prize

A prize of $50, founded by Mrs. Esther Herrman, is awarded annually for excellence in botany.

Kohn Mathematical Prize

A prize of $50, founded by Mrs. S. H. Kohn, is awarded annually to a Senior for excellence in mathematics. Competitors for this prize must have pursued mathematics continuously during their college course.

Bunner Medal

By the terms of its establishment, the H. C. Bunner Gold Medal (page 38) is open for competition to students in Barnard College.

REGISTER OF STUDENTS

SENIOR CLASS

Barrick, Mary Olive	Jersey City, N. J.
Beer, Alice	(Mhtn) New York City
†Berry, Edith	East Orange, N. J.
Bloodgood, Lisa Delevan	(Bklyn) New York City
Brown, Bertha	Bloomfield, Canada
†Buffington, Margaret	Millburn, N. J.
Butler, Eliza Rhees	Paterson, N. J.
Cameron, Marie Elise Helen	Woodside, N. Y.
†Carhart, Elizabeth Merle	Peekskill, N. Y.
Carman, Cerise Emily Agnes	(Mhtn) New York City
Catlin, Helen Elizabeth	Bloomfield, N. J.
Cook, Clara Coburn	Yonkers, N. Y.
†Cooper, Isabella Mitchell	Troy, N. Y.
†Cutting, Harriet Elizabeth	Yonkers, N. Y.
Dederer, Pauline Hamilton	(Mhtn) New York City
Eaton, Mary Lavinia	Nyack, N. Y.
†Elting, Mabel	New Paltz, N. Y.
Fisher, Mary Hedges	Mount Vernon, N. Y.
†Hamilton, Elizabeth	(Mhtn) New York City
Hanks, Lenda Tracy	(Mhtn) New York City
Heroy, Madalene	(Mhtn) New York City
Hudson, Clara Elizabeth	(Q) New York City
Isaacs, Isabel Estelle	(Mhtn) New York City
Jacobs, Lillie Friedlander	(Bklyn) New York City
Johnson, Adele Remsen	(Bklyn) New York City
Johnson, Euphemia	Middletown, Conn.
Josephthal, Hilda Emily	(Mhtn) New York City
Kane, Helen Agnes	(Bklyn) New York City
†Kellogg, Olive Catherine	(Mhtn) New York City
†Kraker, Rose Lois	Rochester, N. Y.
Kunz, Eda Flora	Erie, Pa.
Leaycraft, Agnes Crawford	(Mhtn) New York City
Loveman, Amy	(Mhtn) New York City
†McKim, Christina Louise	Yonkers, N. Y.
†Morrison, Mary Rathbone	White Plains, N. Y.
Oppenheimer, Florence	(Mhtn) New York City

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† Also a candidate for the Secondary Diploma, Teachers College.

Osborn, Bessie May	Yonkers, N. Y.
Pollak, Meta	Summit, N. J.
Preston, Jennie Florence	Orange, N. J.
†Rennert, Rosina Julia	(Mhtn) New York City
Roberts, Elizabeth Carpenter	(Q) New York City
Sanville, Florence Lucas	(Mhtn) New York City
†Schuyler, Sarah Edwards	Plainfield, N. J.
Straus, Sissie Cecile	(Mhtn) New York City
†Studdiford, Jannetta Gordon	Lambertsville, N. J.
Townsend, Marian Goodall	(Mhtn) New York City
Upton, Marguerite Edith	Colorado Springs, Colo.
Wallach, Alma Frank	(Mhtn) New York City
Wehncke, Marie Louise	(R) New York City
†Wendell, May Godfrey	Bridgeport, Conn.
†Wendt, Cordelia	Larchmont, N. Y.
Whitney, Catherine Elizabeth	(Mhtn) New York City
Senior Class	52

JUNIOR CLASS

†Allen, Elizabeth	(Bklyn) New York City
Aller, Georgetta Platt	(Bklyn) New York City
Alsberg, Elsa	(Mhtn) New York City
Belcher, Frances Elinor	Mount Vernon, N. Y.
Bergen, Elsa Gubner	(Bklyn) New York City
Berkeley, Fanny Campbell	Morgantown, Va.
Boote, Edith	Yonkers, N. Y.
Brown, Jessie Louise Preston	(Mhtn) New York City
†Budd, Mary Hunt	Chester, N. J.
Carll, Lydia Adèle	(Q) New York City
†Chapin, Edna Cara	Mount Vernon, N. Y.
Clark, Margaret Elizabeth	Amenia Union, N. Y.
Coddington, Elizabeth Cadmus	Passaic, N. J.
De Hart, Grace Lucille	Jersey City, N. J.
Donald, Rebecca Staunton	(Mhtn) New York City
Durant, Edith	(Mhtn) New York City
†Earle, Ruth	(Mhtn) New York City
Elliman, Margaret Grote	(Mhtn) New York City
Hall, Mary Dederick	Mount Vernon, N. Y.
Hunt, Eleanore Harrison	West Orange, N. J.
Ingalls, Edith May	New Rochelle, N. Y.
†Kimball, Viola Louise	Greenwich, Conn.
La Monte, Sue Life	Owego, N. Y.
McKenney, Annie Pickrell	Petersburg, Va.
Moore, Martha Wickham	Passaic, N. J.
Naumburg, Alice	(Mhtn) New York City
Neiswender, Ada Blanche Clouse	(Bklyn) New York City
Newman, Ethel Leone	Riverside, Conn.

† Also a candidate for the Secondary Diploma, Teachers College.

Peters, Grace Malvina..................................(R) New York City
Phelps, Eleanor..................................(Mhtn) New York City
Pollak, Wilma Vera..................................(Mhtn) New York City
Rosenstein, Alma..................................(Mhtn) New York City
†Seibert, Jeannette Rowland........................(Bklyn) New York City
†Seward, Annie Leddell..................................East Orange, N. J.
Shaen, Mary Carolyn..................................Yonkers, N. Y.
Totten, Elsie Lloyd..................................(Mhtn) New York City
Van Cott, Eleanor Elizabeth........................(Mhtn) New York City
Winterburn, Una Adèle..................................Edgewater, N. J.
Wright, Helen Maria..................................(Bklyn) New York City
Junior Class..................................39

SOPHOMORE CLASS

Addoms, Jessie Alice..................................(Mhtn) New York City
Bamberger, Alice Clara Judith........................(Mhtn) New York City
Bogia, Susan Harris..................................Passaic, N. J.
Cahn, Anita Gella..................................(Mhtn) New York City
Campbell, Elsa Patterson..................................Kansas City, Mo.
Cheesman, Florence Palmer........................(Mhtn) New York City
Clark, Gertrude Helen..................................(Mhtn) New York City
Cohen, Helen Louise..................................(Mhtn) New York City
Coleman, Anna Aloysius Agnes........................Pelham Manor, N. Y.
Fitch, Ellice Heaton..................................(Mhtn) New York City
Fry, Edna Louise..................................(Bklyn) New York City
Groff, Mary..................................Jersey City, N. J.
Gruening, Clara Emily..................................(Mhtn) New York City
Harrison, Mary Fredericka........................(Bklyn) New York City
Hope, Ida May..................................(Mhtn) New York City
Horn, Elizabeth..................................Belvidere, N. J.
Howard, Clare Maclellen..................................(Mhtn) New York City
Johnson, May Amerman..................................(Mhtn) New York City
Jones, Edna Blanche..................................(Mhtn) New York City
Kaufmann, Jessie..................................(Mhtn) New York City
King, Helen Louise..................................(Mhtn) New York City
Kohn, Lucile..................................(Mhtn) New York City
Kroeber, Elsbeth..................................(Mhtn) New York City
Latham, Marion Elizabeth........................(Mhtn) New York City
Lewisohn, Adèle Teresa..................................(Mhtn) New York City
Lockwood, Hilda Le Grand........................(Mhtn) New York City
May, Eleanor Cushing..................................(Mhtn) New York City
Miller, Jean Wallace..................................(Mhtn) New York City
Moen, Mary Warren..................................(Mhtn) New York City
Newton, Ethel Blanchard..................................Montclair, N. J.
Nones, Sadie Floy..................................(Mhtn) New York City
Pool, Ethel Manter..................................(Mhtn) New York City
Poole, Katherine Ellen..................................Faribault, Minn.

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† Also a candidate for the Secondary Diploma, Teachers College.

Rauh, Florence Ethel	(Mhtn) New York City
Robinson, Amelia Maude	Sayville, N. Y.
Rogers, Helen Miles	Fond du Lac, Wis.
Seguine, Laura Randolph	(R) New York City
Shainwald, May Seville	(Mhtn) New York City
Sherman, Lucy Fidelia	Peekskill, N. Y.
Siedler, Marguerite	(Mhtn) New York City
Skinner, Madeleine Dayrell	(Bklyn) New York City
Spencer, Carita	(Mhtn) New York City
Stern, Irma Regina	(Mhtn) New York City
Straus, Mildred Caroline	(Mhtn) New York City
Thompson, Bessie Ilsley	(Bklyn) New York City
Toscano, Louise Josephine Colvin	(Q) New York City
Van Cise, Laura Knowles	Summit, N. J.
Wallach, Adèle Nettie	(Mhtn) New York City
Walters, Elizabeth Roe	(Q) New York City
Ware, Anna Goodwin	(Mhtn) New York City
Wilcox, Ethel Dodge	Yonkers, N. Y.
Sophomore Class	51

FRESHMAN CLASS

Adey, Mildred Hunt	(Mhtn) New York City
Appell, Edith May	Mount Vernon, N. Y.
Applegate, Clara Marguerite	Newburgh, N. Y.
Arnaud, Lucy Guilia	(Bklyn) New York City
Bacon, Majorie Kate	(Bklyn) New York City
Barker, Sadie Rose	Irvington, N. Y.
Beeckman, Florence Louise	(Mhtn) New York City
Beifeld, Minnie Margaret	(Mhtn) New York City
Boulger, Minnie Randolph	(Mhtn) New York City
Bromley, Mary MacNeil	Plattsburgh, N. Y.
Butts, Edith	Hoboken, N. J.
Cahen, Elfie Julia	(Mhtn) New York City
Claffy, Margaret Loretta Charles	(Bklyn) New York City
Cohen, Rae Florence	Petersburg, Va.
Colt, Mary Elizabeth Scovell	Buffalo, N. Y.
Compton, Mabel Grace	(Bklyn) New York City
Cragin, Elizabeth Schell	(Mhtn) New York City
Curtis, Sarah Theodora	(Mhtn) New York City
Denton, Mabel	Paterson, N. J.
Doty, Catharine Swift	(Mhtn) New York City
Durant, Agnes Lacy	(Mhtn) New York City
Egleston, Jean Dunbar	Elizabeth, N. J.
Einstein, Milly Judith	(Mhtn) New York City
Elleau, Augustine	Newark, N. J.
Elting, Helen Stickney	Yonkers, N. Y.
Embury, Lucy Bates	Englewood, N. J.

Enright, Emma Mulford	Freehold, N. J.
Ensign, Mary	(Mhtn) New York City
Erskine, Helen	(Mhtn) New York City
Fischer, Helena Marshall	(Mhtn) New York City
Forrest, Natalie Sternberg	(Mhtn) New York City
Fountain, Charlotte Boyd	Jersey City, N. J.
Frothingham, Mary Katherine	(Mhtn) New York City
Glenn, Helen Mildred	(Mhtn) New York City
Granger, Edith Adell	Mount Vernon, N. Y.
Haas, Edith Joanna	(Mhtn) New York City
Hawes, Jane Jewett	New Rochelle, N. Y.
Herts, Rhoda Leonora	(Mhtn) New York City
Hill, Harriet Newell	(Mhtn) New York City
Hirsch, Selma Helen	(Mhtn) New York City
Hirshbach, Helen Frederica	(Mhtn) New York City
Hoyt, Jessie Fenton	(Mhtn) New York City
Hubbard, Florence Eddy	(Mhtn) New York City
Hughan, Ethel Margaret	(Bklyn) New York City
Hunt, Martha Marguerite	Jersey City, N. J.
Leers, Hilma	Paterson, N. J.
Levy, Grace	Sea Cliff, N. Y.
Lewis, Ida Ethel	Plainfield, N. J.
Lexow, Caroline	Nyack, N. Y.
Lichten, Dora Elsie	(Mhtn) New York City
Loomis, Jean Herring	(Mhtn) New York City
Lyon, Romola	Englewood, N. J.
McCormick, Rose Marie	Perth Amboy, N. J.
McLean, Elizabeth	Jersey City, N. J.
Marshall, Edythe Nelson	Jersey City, N. J.
Metcalfe, Lizzette May	(Bklyn) New York City
Miller, Lena Adèle	White Plains, N. Y.
Miller, Mildred Elsgood	(Bklyn) New York City
Mills, Elizabeth Taylor	(Bklyn) New York City
Morgan, Charlotte Elizabeth	(Bklyn) New York City
Nevins, Dora Russell	(Bklyn) New York City
Nutt, Rachel Evans	Cliffside, N. J.
Oppenheimer, Elsa Madeleine	(Mhtn) New York City
Parker, May Appleton	(Mhtn) New York City
Poor, Edith Brandon	(Mhtn) New York City
Popper, Hilda Lotta	(Mhtn) New York City
Pretzfeld, Elma	(Mhtn) New York City
Schlussel, Ethel Rose	(Mhtu) New York City
Smith, Marion Brinton	(Mhtn) New York City
Spooner, Marion Seymour	(Mhtn) New York City
Stern, Ruth Marjorie	(Mhtn) New York City
Stobo, Jeannette Russell	(Mhtn) New York City
Stone, Margaret Holmes	(Mhtn) New York City

Sturcke, Emma Hazelton	Mamaroneck, N. Y.
Swan, Bessie Louise	(Mhtn) New York City
Thomas, Martha Ellen	Yonkers, N. Y.
Van Deursen, Helen Tewksbury	Tarrytown, N. Y.
Van Ingen, Edith Gifford	(Bklyn) New York City
Van Slyke, Alida Margaret	New Baltimore, N. Y.
Waring, Anna Tallman	Piermont, N. Y.
Werts, Harriet Estelle	Jersey City, N. J.
Wick, Jeannette	Elmhurst, N .Y.

Freshman Class 82

SPECIAL STUDENTS

Abrams, Effie Murray	Hartford, Conn.
Armstrong, Katharine	Louisville, Ky.
Ball, Marion Elizabeth Pruyn	(Mhtn) New York City
Burton, Harriet Wright	Woodside, N. Y.
Calhoun, Mary Edwards	(Bklyn) New York City
Corey, Alice Felicita	Elmira, N. Y.
Finnigan, Elizabeth	(Mhtn) New York City
Fletcher, Fanny Bence	Proctorsville, Vt.
Harriman, Mary	(Mhtn) New York City
Haydock, Amelia	(Mhtn) New York City
Henderson, Natalie	(Mhtn) New York City
Herzfeld, Elsa Goldina	(Mhtn) New York City
Hodges, Janet Pitkethly (Mrs. A. Hodges)	(Mhtn) New York City
Hillinger, Eva	Terre Haute, Ind.
Judson, Sarah Elizabeth	(Mhtn) New York City
Kernochan, Mary Stuart	(Mhfn) New York City
Kirchwey, Mary Fredericka	(Mhtn) New York City
Lewis, Mary Sinton	Morristown, N. J.
McCook, Janet Alexander	(Mhtn) New York City
McRae, Frances Elbertine	(Mhtn) New York City
Menken, Gretchen v. Briesen (Mrs. S. S. Menken)	(Mhtn) New York City
Molwitz, Ernestine Julia	(Mhtn) New York City
Neuman, Henrietta	(Mhtn) New York City
Parsons, Constance	(Mhtn) New York City
Putnam, Alice	Chicago, Ill.
Rosenblatt, Bella	(Mhtn) New York City
Stewart, Luella Wilson	(Bklyn) New York City
Straus, Gertrude Josephine	(Mhtn) New York City
Trimble, Louise Matilda	Farmerville, La.
Waller, Edith	Morristown, N. J.
Whiton, Mary Knowlton	Plainfield, N. J.
Wright, Adelaide Hilton	Elizabeth, N. J.

Special Students..32

MUSIC STUDENTS

Babcock, Isabel Starr	Nyack, N. Y.
Barnes, Madeleine Winthrop	(Mhtn) New York City

Clark, Julia Ailleen	Chicago, Ill.
Clough, Carrie Lucille	(Mhtn) New York City
Cromwell, Mary Rebecca	Bernardsville, N. J.
Cunningham, Celeste Talley	(Mhtn) New York City
Davison, Mary Lucinda	Owego, N. Y.
Déyo, Ruth Lynda	(Mhtn) New York City
Diller, Angela	(Mhtn) New York City
Dunning, Sara Lovisa	(Mhtn) New York City
Dyer, Agnes Louise	(Bklyn) New York City
Ettlinger, Josephine	(Mhtn) New York City
Friedmann, Carrie Florence	(Mhtn) New York City
Gallegher, Angela	(Mhtn) New York City
Griffing, Anne Van Winkle (Mrs. E. B. Griffing)	(Mhtn) New York City
Gottschalk, Clara Aimée	(Mhtn) New York City
Holmes, Caroline Sweet	Montclair, N. J.
Jones, Edith Louise	Denver, Colo.
Lenssen, Elizabeth Goelet	Englewood, N. J.
Levy, Fanny Granbery	Mount Vernon, N. Y.
Littig, Mary Langsdorff	(Mhtn) New York City
Mack, Annabelle	Cleveland, O.
May, Louise Cooper	Boston, Mass.
Mitchell, Edith	(Mhtn) New York City
Mooney, Mary Agnes	(Mhtn) New York City
Morgan, Agnes Margaret	(Mhtn) New York City
Newcomb, Marian	(Mhtn) New York City
Niewenhous, Katharine Elizabeth	(Mhtn) New York City
Park, Mabel	(Mhtn) New York City
Preston, Edith Jennie	Orange, N. J.
Ryshpan, Bertha	(Mhtn) New York City
Selfridge, Nina Russell	Washington, D. C.
Seward, Matie Cory	Goshen, N. Y.
Van Ingen, Helen	(Bklyn) New York City
Weil, Helene Margarete	(Mhtn) New York City
Weir, Frances Underhill	Plainfield, N. J.
Whitehead, Julia Halsey	(Mhtn) New York City

Music Students....................37

SUMMARY

Senior Class	52	
Junior Class	39	
Sophomore Class	51	
Freshman Class	82	
Special Students	32	
Music Students	37	
		293
University Students		25
STUDENTS FROM TEACHERS COLLEGE		53
Total		371

TEACHERS COLLEGE

TRUSTEES

SPENCER TRASK, *Chairman*
NEWBOLD MORRIS, *Secretary*
MISS GRACE H. DODGE, *Treasurer*

WILLIAM F. BRIDGE
GEORGE W. VANDERBILT
REV. DAVID H. GREER
PETER B. OLNEY
V. EVERIT MACY
WILLIAM G. ROCKEFELLER
B. TALBOT B. HYDE
JOSEPH MILBANK
FRANCIS O. MATTHIESSEN
WILLIAM M. SLOANE, Ph.D., L.H.D.
SETH LOW, LL.D.
CHARLES W. HARKNESS
MISS ANNIE B. JENNINGS
JAMES SPEYER

Officers of Administration

SETH LOW, LL.D.,
President of the University

JAMES EARL RUSSELL, Ph.D.,
Dean

VIRGIL PRETTYMAN, A.M.,
Principal of the Horace Mann School

JOHN FRANCIS WOODHULL, Ph.D.,
Professor in Charge of Buildings and Grounds

LE ROY MASON BEEMAN, A.M.,
Secretary

LUCETTA DANIELL,
Directress

ELIZABETH G. BALDWIN,
Librarian

MARY C. BRUSH,
Registrar

ISABELLE L. PRATT,
Secretary to the Dean

CHARLES H. FARNSWORTH,
College Organist

Caroline E. Cabot, M.D.,
Examining Physician

John Perry Seward, M.D.,
Examining Physician

REPRESENTATIVES IN UNIVERSITY COUNCIL

James Earl Russell, Ph.D., *ex-officio*
John Francis Woodhull, Ph.D., (*term expires* 1902).

The Faculty

Seth Low, LL.D.
James Earl Russell, Ph.D., *Dean and Professor of the History of Education*
Nicholas Murray Butler, Ph.D., LL.D., *Professor of Philosophy and Education*
Frank Morton McMurry, Ph.D., *Professor of the Theory and Practice of Teaching*
James McKeen Cattell, Ph.D.................... *Professor of Psychology*
John Francis Woodhull, Ph.D.............. *Professor of Physical Science*
Franklin Thomas Baker, A.M....... *Professor of English Language and Literature*
Edward Howard Castle, A.M..................... *Professor of History*
Richard Elwood Dodge, A.M.................... *Professor of Geography*
Helen Kinne................................ *Professor of Domestic Science*
Mary Duncan Runyan........................ *Professor of Kindergarten*
Alfred Vance Churchill, A.M......................... *Professor of Art*
Charles Russell Richards, B.S........... *Professor of Manual Training*
Samuel Train Dutton, A.M........... *Professor of School Administration*
Gonzalez Lodge, Ph.D..................... *Professor of Latin and Greek*
Francis Ernest Lloyd, A.M........ *Adjunct Professor of Biological Science*
Charles Earl Biklé, A.M.............. *Adjunct Professor of Mathematics*
Mary Schenck Woolman............... *Adjunct Professor of Domestic Art*
Paul Monroe, Ph.D.......... *Adjunct Professor of the History of Education*
Virgil Prettyman, A.M........ *Principal of the Horace Mann High School*
Frederick Remsen Hutton, Ph.D.... *Professor of Mechanical Engineering*

GENERAL STATEMENT

Teachers College, founded in 1888 and chartered by the Regents of the University of the State of New York on January 12, 1889, became, by an agreement dated March 22, 1898, a part of the educational system of Columbia University. The President of Columbia University is President, *ex-officio*, of Teachers College, and the College is represented in the University Council by the Dean and an elective representative of its Faculty.

Teachers College maintains its separate corporate organization, and its Board of Trustees continue to assume the entire financial responsibility for its maintenance.

Teachers College is the professional school of Columbia University for the study of education and the training of teachers. It takes academic rank with the Schools of Law, Medicine, and Applied Science. The purpose of Teachers College is to afford opportunity, both theoretical and practical, for the training of teachers of both sexes for elementary and secondary schools, of specialists in various branches of school work, and of principals, supervisors, and superintendents of schools.

The following courses of study are offered by Teachers College:

1. A collegiate course which is offered as an alternative for the first two years of the course in Columbia College or Barnard College, and which may be entered by any student who, having satisfied the requirements for admission to the undergraduate colleges of Columbia University, desires to direct his college studies more specifically towards teaching in elementary schools. This course followed by a two-years' professional course leads to the degree of Bachelor of Science.
2. Two-year courses leading to diplomas for teaching in the kindergarten or in the elementary schools. *Prerequisite:* (*a*) Graduation from an approved normal school or teachers training-school, or (*b*) the completion of the collegiate course above mentioned or (*c*) the sophomore year in an approved college or institution of equal academic rank.
3. Two-year courses leading to diplomas for teaching Fine Arts, Domestic Art, Domestic Science, and Manual Training. *Prerequisite:* Candidates for admission to this course must give evidence (a) of having completed a satisfactory course in an approved secondary school, and (b) of collegiate study or technical training or experience in teaching during a period of at least two years following the secondary school course.
4. A one-year graduate course leading to a diploma for teaching certain specified subjects in secondary schools. *Prerequisite:* The bachelor's degree, with proper qualifications in subject-matter.
5. A graduate course (minimum residence, one year) leading to a higher diploma. *Prerequisite:* Graduation from an approved institution of learning,—a college, engineering school, or normal school, or the equivalent of one of these; presentation of satisfactory evidence of a high degree of professional ability as a result of teaching experience or the study of education; and the ability to undertake research and investigation.

The course of study for intending teachers in secondary schools is so arranged that undergraduate students of Columbia College and of Barnard College, and students from other colleges who are prepared to enter the senior class of either of these colleges, may, if they so desire, obtain the diploma of Teachers College at the time of receiving the degree of Bachelor of Arts. In like manner qualified students entering Teachers College may obtain the degree of Bachelor of Science and a diploma at the same time. Certain courses in Teachers College may be counted in partial fulfilment of the requirements for the degrees of Master of Arts and Doctor of Philosophy. Graduate students of Teachers College who conform to the general regulations of the University Council may thus pursue at the same time courses leading to a diploma and a higher degree.

The Horace Mann School, fully equipped with kindergarten, elementary, and secondary classes, is maintained by Teachers College as a school of observation and demonstration. It offers unexcelled advantages for the investigation of educational problems and for the study of the practical work of teaching.

Buildings and Equipment

The buildings of Teachers College and of the Horace Mann School are situated on West 120th and 121st Streets, between Amsterdam Avenue and Broadway, directly opposite the northern boundary of the University grounds.

The Macy Manual Arts Building is thoroughly equipped for the departments of Manual Training and Art Education. All other departments of the College and of the Horace Mann School, including the Bryson Library of some 13,000 volumes, the chapel, and the gymnasium, are located in the Milbank Memorial Building and in the Main Building.

REGISTER OF STUDENTS

Candidates for a Higher Diploma

Abbott, Mary..................................(Mhtn) New York City
Normal College, New York City, 1878.
Education.

† Alger, Lewis Burton..................................St. Joseph, Mich.
Albion College, 1893–1896.
University of Michigan, Ph.B., 1897.
Education, Geography.

Appel, Frank John..................................(Mhtn) New York City
German-American Teachers Seminary, 1896.
Education, Psychology.

* Bachman, Frank Puterbaugh..................................Mackinaw, Ill.
University of Marburg, 1896–1897.
University of Chicago, A.B., 1898.
Education, Psychology.

Bacon, Pearl..................................(R) New York City
Education.

Bebout, Edwin..................................Westwood, N. J.
New Jersey State Normal School, 1894.
Education.

Beller, Wilhemina Catharine..................................(Mhtn) New York City
Normal College, New York City, 1881.
Education.

† Bennion, Milton..................................Salt Lake City, Utah
University of Utah, B.S., 1897.
Education, Philosophy, Psychology.

* Bently, Rufus Clarence..................................San Rafael, Cal.
University of Nebraska, A.B., 1894; A.M., 1896.
Education, Psychology.

Best, Fannie Ellsler..................................(R) New York City
State Normal College, Albany, N. Y., 1877.
Education.

Bevier, Katherine..................................(Mhtn) New York City
Normal College, New York City, 1876.
Education, English.

* Also a candidate for the Ph.D. degree. † Also a candidate for the A.M. degree.

Blood, Annah Prentice....................................Pepperell, Mass.
State Normal School, Salem, Mass., 1881.
Teachers College, 1900.
Education, *Biology*, *Geology*.

Bodler, John William Walton.......................(Mhtn) New York City
State Normal School, Mansfield, Pa., M.E., 1890.
Lafayette College, Ph.B., 1896.
Buffalo Teachers College, 1897-1898.
Education.

Boughton, Willis..................................(Bklyn) New York City
University of Michigan, A.B., 1881.
Dickinson College, A.M., 1891.
Ohio University, Ph.D., 1900.
Education, *English*.

* Broome, Edwin Cornelius.........................(Mhtn) New York City
Brown University, A.B., 1897; A.M., 1898.
Education, *English*.

† Brunn, Freda Marguerita.........................(Bklyn) New York City
Teachers College, 1897.
Adelphi College, A.B., 1899.
Education.

* Clark, Adelbert Thomas Selden...................(Mhtn) New York City
Union University, C.E., 1876; A.B., 1877; A.M., 1879.
Education, *History*, *Literature*.

Clowes, Helen Coe......................................Hempstead, N. Y.
Teachers College, 1900.
Education.

* Cottrell, John Boardman..........................(Bklyn) New York City
Alfred University, A.B., 1893.
New York University, M.A., 1900.
Education.

Dean, Philip Redfield...................................Colebrook, Conn.
Harvard University, A.B., 1896.
New York University, 1899-1900.
Education.

Egbert, Katharine Wolcott...............................Rosebank, N. J.
State Normal School, New Paltz, N. Y., 1895.
Education, *English*, *Mathematics*.

† Emerson, Mary Josephine.........................(Mhtn) New York City
Education.

† Farrington, Frederic Ernest......................(Mhtn) New York City
Harvard University, A.B., 1894.
Education, *Psychology*.

Foster, Carolyn Dean....................................Rochester, N. Y.
St. Lawrence University, A.B., 1894.
Education.

* Also a candidate for the Ph.D. degree. † Also a candidate for the A.M. degree.

† Garritt, Albert Warren............................(Mhtn) New York City
College of the City of New York, B.S., 1890.
Education, Mathematics.

Garrity, Anna Ringwood ....Chatham, N. Y.
State Normal College, Albany, N. Y., 1889.
Education.

Goadby, Arthur.....................................(Mhtn) New York City
Harvard University, 1885-1886.
Education, English, Sociology.

* Hall, John William.......................................Greeley, Col.
State Normal School, Normal, Ill., 1890.
University of Jena, 1892-1895.
Education, Geography.

Harrigan, James.......................................(R) New York City
St. Lawrence University, B.S., 1896.
State Normal School, Potsdam, N. Y., 1899.
Education, English.

Harrison, Grace..(R) New York City
State Normal College, Albany, N. Y., 1889.
Education.

Hildreth, Helen Rebecca ....Lockport, N. Y.
State Normal School, Winona, Minn., 1893.
Teachers College, 1899.
Education, Manual Training, Biology.

Hollis, Ida Minerva ....Hornellsville, N. Y.
Education, History.

Hurd, Julia Malita......................................(R) New York City
Education.

† Jenks, Elijah, Jr....................................(Br) New York City
College of the City of New York, B.S., 1889.
Education.

† Jenks, Paul Rockwell..................................Concord, N. H.
Dartmouth College, A.B., 1894.
Education, Greek.

Johnson, Euphemia.....................................Middletown, Conn.
Radcliffe College, 1891-1892.
University of Pennsylvania, 1898-1899.
Candidate for A.B., 1900.
Education, English, History.

Kahn, Arabella ....(Mhtn) New York City
Normal College, New York City, 1885.
Education.

* Kaplan, Mordecai Menahem ....(Mhtn) New York City
College of the City of New York, A.B., 1900.
Education, Philosophy, Political Science.

* Kelly, Bernard Hetherington.........................(Br) New York City
New York University, B.S., 1893.
Education.

* Also a candidate for the Ph.D. degree. † Also a candidate for the A.M. degree.

† Kent, Ernest Beckwith .... Indianapolis, Ind.
Atlanta University, 1886-1889.
Iowa College, A.B., 1894.
Education, Psychology, Manual Training.

† Knox, Thomas Harry .... (Mhtn) New York City
College of the City of New York, B.S., 1888.
Education, Mechanics.

Lambert, Marcus Bachman .... (Bklyn) New York City
Lafayette College, A.B., 1882.
Johns Hopkins University, 1884-1885.
Education.

Lyon, Elvira Nathan .... (Mhtn) New York City
Teachers College, 1900.
Education.

Mack, Mary S. .... Denver, Col.
State Normal School, New Britain, Conn., 1882.
Education, Biology.

Manny, Frank Addison .... (Mhtn) New York City
University of Michigan, A.B., 1893; A.M., 1896.
University of Chicago, 1896-1897.
Education.

*Marsh, Horace Wilmer .... (Bklyn) New York City
Lafayette College, A.B., 1889; A.M., 1893.
Education, Philosophy.

†Martin, George Kempton .... (Mhtn) New York City
College of the City of New York, B.S., 1893.
Education.

Miller, Susanne Rebecca Marian .... Minneapolis, Minn.
Teachers Training School, Mansfield, Ill., 1891.
University of Minnesota, 1898-1900.
Education, English.

Morey, James S. .... (Bklyn) New York City
State Normal School, New Paltz, N. Y., 1889.
Education.

†Morris, George .... (Bklyn) New York City
Rutgers College, B.S., 1889.
Education.

*Murray, William Smith .... Bath, N. Y.
Syracuse University, B.S., 1888; M.S., 1892.
Education, History, English.

McAleer, Mary Frances .... (Mhtn) New York City
Normal College, New York City, 1885.
Education, Geography.

*Nichols, Walter Hammond .... (Mhtn) New York City
University of Michigan, B.S., 1891.
Education, History.

* Also a candidate for the Ph.D. degree. † Also a candidate for the A.M. degree.

Norsworthy, Naomie..............................(Mhtn) New York City
State Normal School, Trenton, N. J., 1896.
Education, Psychology, Chemistry.

O'Grady, Caroline Geraldine........................(Mhtn) New York City
Toronto Normal School, 1893.
University of Pennsylvania, 1897–1899.
Education, Psychology.

Pardee, Sheldon John..................................(R) New York City
Michigan State Normal School, 1872.
Union Christian College, B.S., 1876; M.S., 1879; Ph.D., 1888.
Education.

† Patri, Angelo...................................(Mhtn) New York City
College of the City of New York, B.A., 1897.
Education.

*Pilgrim, Yancey Calhoun.................................Kearney, N. J.
Lafayette College, Ph.B., 1889; M.S., 1892.
Education.

† Pugliese, Anthony...............................(Mhtn) New York City
College of the City of New York, B.A., 1897.
Education.

† Rafferty, William B...............................(R) New York City
St. Lawrence University, A.B., 1890.
Education.

† Reynolds, James Joseph.........................(Mhtn) New York City
College of the City of New York, B.S., 1893.
New York University, LL.B., 1897.
Education, Psychology.

Schiller, Bianca.......................................(Q) New York City
State Normal School, Oswego, N. Y., 1895.
Education, Psychology, English.

* Shafer, Harry Martin......................................Eureka, Ill.
Eureka College, S.B., 1887; S.M., 1890.
Harvard University, A.B., 1899; A.M., 1900.
Education, Psychology.

† Shaw, Ira Dennison............................(Mhtn) New York City
State Normal School, Randolph, Va., 1890.
Oberlin College, A.B., 1898.
Education, English.

Simons, Charles Frederick............................(R) New York City
State Normal School, Fredonia, N. Y., 1871–1874.
Education.

* Smith, William Walter...........................(Mhtn) New York City
Princeton University, A.B., 1889; A.M., 1892.
General Theological Seminary, N. Y., 1892.
Columbia University, M.D., 1895.
Education, Psychology.

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* Also a candidate for the Ph.D. degree. † Also a candidate for the A.M. degree.

† Snedden, David Samuel .... Griffin, Cal.
St. Vincent College, A.B., 1890.
Leland Stanford, Jr., University, A.B., 1897.
Education, Psychology, Sociology.

* Snow, Louis Franklin .... Providence, R. I.
Brown University, Ph.B., 1887.
Harvard University, A.B., 1889; A.M., 1890.
Education, English.

† Spaulding, Frank Benton .... (Bklyn) New York City
State Normal School, Potsdam, N. Y., 1887.
St. Lawrence University, B.S., 1895.
Education, Physics.

† Springmeyer, Charles Edwin .... (Mhtn) New York City
College of the City of New York, A.B., 1897.
Education.

Stanton, Benjamin J .... (R) New York City
State Normal College, Albany, N. Y., 1888.
Education, History.

Sutliffe, Elisabeth .... (R) New York City
State Normal College, Albany, N. Y., Ph.B., 1896.
Education.

Toepp, Lawrence A. .... (R) New York City
Griffith Institute, 1890.
Education.

† Tucker, Louise Emery .... (Bklyn) New York City
Adelphi College, A.B., 1900.
Education, Philosophy.

Viertel, Samuel .... (Mhtn) New York City
College of the City of New York, B.S., 1898.
Education.

† Wade, John Edgar .... (Mhtn) New York City
College of the City of New York, B.S., 1897.
Education.

Warren, Clara E. .... (R) New York City
State Normal College, Albany, N. Y., 1893.
Education, English, History.

† Watson, Lake George .... Richmond, Ind.
Earlham College, Ph.B., 1900.
Education, German.

Wheeler, Mary Louise .... Montclair, N. J.
Teachers College, 1900.
Education.

Willard, Frank A. .... (Bklyn) New York City
Hamilton College, A.B., 1880.
Education.

Yates, Albertis A. .... (R) New York City
Education, History.

* Also a candidate for the Ph.D. degree. † Also a candidate for the A.M. degree.

† Zollinhofer, Sophie .... (Bklyn) New York City
Teachers College, 1897.
Adelphi College, A.B., 1899.
Education.

Candidates for a Secondary Diploma

* Abelson, Paul .... (Mhtn) New York City
College of the City of New York, A.B., 1899.
History.

Allen, Elizabeth .... (Bklyn) New York City.
Candidate for A.B., 1902.
Mathematics.

† Angell, Nina .... Ithaca, N. Y.
Cornell University, A.B., 1900.
Greek, Latin.

† Ayres, Mary Stevens .... (Bklyn) New York City
Leland Stanford, Jr., University, 1893–1894.
Wellesley College, A.B., 1900.
English.

† Baldwin, Arthur Pond .... (Bklyn) New York City
College of the City of New York, A.B., 1876.

† Beardslee, Esmond B. .... Little Meadows, Pa.
Colgate University, A.B., 1897.
History.

Berry, Edith .... East Orange, N. J.
Candidate for A.B., 1901.
Mathematics.

† Blair, Carrie Winifred .... Wolfville, Nova Scotia
Acadia University, B.A., 1898.
English.

* Blodgett, Frederick Harvey .... (Br) New York City
Rutgers College, B.S., 1897; M.S., 1899.
Biology.

Brinckerhoff, Adolph .... (Mhtn) New York City
Candidate for A.B., 1901.

† Brown, Marion Raymond .... Oxford, N. Y.
Wells College, A.B., 1898.
Biology.

Budd, Mary Hunt .... Chester, N. J.
Candidate for A.B., 1902.
Mathematics.

Buffington, Margaret .... Millburn, N. J.
Candidate for A.B., 1901.
German, Latin.

† Burr, Marjorie .... Williamstown, Mass.
Vassar College, B.A., 1899.
English, History.

* Also a candidate for the Ph.D. degree. † Also a candidate for the A.M. degree.

Carhart, Elizabeth Merle..........................Peekskill-on-Hudson, N. Y.
Candidate for A.B., 1901.
History.

† Carpenter, Jane Brodie....................................Andover, Mass.
Mt. Holyoke College, B.L., 1897; B.A., 1898.
English.

† Casamajor, Alice..................................(Bklyn) New York City
Adelphi College, A.B., 1899.
History.

Chapin, Edna Cara..................................Mount Vernon, N. Y.
Candidate for A.B., 1902.
Physical Science.

Cooper, Isabella Mitchell....................................Troy, N. Y.
Teachers College, 1899.
Candidate for A.B., 1901.
English, History.

Cutting, Harriet Elizabeth..................................Yonkers, N. Y.
Candidate for A.B., 1901.
Greek.

† Dawson, Alice Belle..............................(Bklyn) New York City
Oxford College, A.B., 1891.
Latin.

† Dixon, Sidney Harry......................................Yonkers, N. Y.
Columbia University, A.B., 1900.
Latin.

† Dodd, Loring Holmes............................(Mhtn) New York City
Dartmouth College, A.B., 1900.
English.

Earle, Ruth..(Mhtn) New York City
Candidate for A.B., 1902.

Elliman, Kenneth Benbow..............................(Q) New York City
Candidate for A.B., 1901.
English.

Elting, Mabel...New Paltz, N. Y.
State Normal School, New Paltz, N. Y., 1894.
Candidate for A.B., 1901.
English, History.

Ferry, Alice Medora..................................Mt. Vernon, N. Y.
Columbia University, A.B., 1897.
Greek, Mathematics.

† Fish, Lucia Hester..Oakland, Cal.
University of California, A.B., 1899.
Greek, Latin.

Forbes, Charles Savage............................(Mhtn) New York City
Candidate for A.B., 1901.
Mathematics.

† Also a candidate for the A.M. degree.

† **Gerken, Walter Diedrich**..............................Jersey City, N. J.
Cornell University, B.S., 1899.
History.

† **Gould, Nelle Julia**..Bayonne, N. J.
Smith College, A.B., 1898.
English, Latin.

† **Green, Mary Wolcott**................................(R) New York City
Syracuse University, A.B., 1895.
Latin.

Hamilton, Elizabeth.................................(Mhtn) New York City
Candidate for A.B.
History.

Heuser, Frederick William Justus..................(Bklyn) New York City
Candidate for A.B., 1901.
German.

† **Horst, Mabel Louise**.......................................Newark, N. J.
Vassar College, A.B., 1900.
English.

† **Johnson, Margaret Edith**..........................(Bklyn) New York City
Adelphi College, B.A., 1899.
English, History.

Kellogg, Olive Catharine............................(Mhtn) New York City
Candidate for A.B., 1901.
English.

Kimball, Viola Louise..................................Greenwich, Conn.
Candidate for A.B., 1902.

Kraker, Rose Lois..Rochester, N. Y.
Candidate for A.B., 1901.
English, German.

† **Lovett, Mary**..Redbank, N. J.
Vassar College, A.B., 1900.
Biology.

Lynch, John K....(Mhtn) New York City
Candidate for A.B., 1901.
German.

† **Lyon, Amy Lulu**.......................................(Bklyn) New York City
St. Lawrence University, A.B., 1899.
History, Mathematics.

† **McConkey, Henry Alexander**......................(Mhtn) New York City
Princeton University, A.B., 1890.
Union Theological Seminary, 1899.
Greek.

McKim, Christina Louise................................Yonkers, N. Y.
Candidate for A.B., 1901.
Mathematics.

McLeod, Leila Durant................................(Bklyn) New York City
Vassar College, A.B., 1899.
English.

† Also a candidate for the A.M. degree.

† Mason, Mabel Kincheon .... (Mhtn) New York City
University of Toronto, A.B. 1898.
French, German.

Mattice, Harold Allison .... (Mhtn) New York City
Candidate for A.B., 1901.
Greek, Latin.

Meigs, Katharine Hedges .... Orange, N. J.
Smith College, A.B., 1891.
Physical Science.

Meyer, John L. .... Annville, Pa.
Lebanon Valley College, A.B., 1893; A.M., 1896.
Latin.

Moody, Ethel Maria .... East Northfield, Mass.
Wellesley College, B.A., 1899.
Mathematics.

Morrison, Mary Rathborn .... White Plains, N. Y.
Wellesley College, 1878–1882.
Candidate for A.B., 1901.
English, History.

Mourer, Carrie Louise .... Westminster, Md.
Western Maryland College, A.B., 1887.
Geography.

Pegram, Robert Bruce .... (Mhtn) New York City
Candidate for A.B., 1901.
English.

Pollock, May Hinton .... (Mhtn) New York City
Normal College, New York City, 1886–1890.
Columbia University, A.B., 1896.
Latin.

Pomeroy, John Norton .... San Francisco, Cal.
Yale University, A.B., 1887; A.M., 1889.
Columbia University, 1888–1890.
University of California, LL.B., 1891.
Greek.

† Raiman, Robert Insall .... (Bklyn) New York City
Columbia University, A.B., 1900.
English.

Rennert, Rosina Julia .... (Mhtn) New York City
Normal College, New York City, A.B., 1897.
Candidate for A.B., 1901.
Biology.

Ross, Herbert Weed .... Newark, N. J.
Candidate for A.B., 1901.
English.

Schuyler, Sarah Edwards .... Plainfield, N. J.
Candidate for A.B., 1901.
Latin.

† Also a candidate for the A.M. degree.

Seibert, Jeannette Rowland........................(Bklyn) New York City
Candidate for A.B., 1902.

Seward, Annie L....................................East Orange, N. J.
Candidate for A.B., 1902.
Mathematics.

Studdiford, Jannetta Gordon..........................Lambertville, N. J.
Bryn Mawr College, 1895–1896.
Candidate for A.B., 1901.
English.

† Taber, Mary Alice..................................Mt. Vernon, N. Y.
Vassar College, A.B., 1898.
Physical Science.

Talcott, Elizabeth Hannah...............................Hartford, Conn.
Smith College, A.B., 1885.

† Watt, Martha Wilbur.............................(Mhtn) New York City
Brown University, Ph.B., 1900.
English, *Mathematics.*

Wendell, May Godfrey..................................Bridgeport, Conn.
Candidate for A.B., 1901.
Latin.

Wendt, Cordelia...Larchmont, N. Y.
Candidate for A.B., 1901.
Greek.

* Zeiger, Franklin..Montclair, N. J.
Columbia University, A.B., 1898; A.M., 1900.
Greek, *Latin.*

Candidates for the Elementary Diploma

In the following lists, the class to which each student belongs is indicated by the figure in parentheses following the name.

Atwood, Theodora (2).......................................Albany, N. Y.

Baer, Dena (2)....................................(Mhtn) New York City

Barrett, Katherine Ceceilia (1)..........................(Q) New York City

Barwick, Mary Jerome (1)...................................Chicago, Ill.
Cook County Normal School, 1888.

Bason, Ida E. (1).......................................(Q) New York City
State Normal School, Jamaica, N. Y., 1900.

Bedell, Helen Louisa (2)..................................Montclair, N. J.
Teachers College, 1896.

Bellows, Russell Heacock (2)...............................Fort Plain, N. Y.
Union College, 1889–1891.
State Normal College, Albany, N.Y., 1893.

Bennet, Sarah (2).................................(Bklyn) New York City

Berwald, Elizabeth Sophie (2)...............................Bradford, Pa.

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* Also a candidate for the Ph.D. degree. † Also a candidate for the A. M. degree.

Blake, Marion (1)..........Jersey City, N. J.
Bowdish, Lewis J. (2)..........(Q) New York City
Candidate for A.B., 1901.
Bridgman, Anne Townsend (1)..........(Mhtn) New York City
Brinkerhoff, Emily Vanderbilt (2)..........Mt. Vernon, N. Y.
Brown, Sarah Jennie (1)..........(Bklyn) New York City
Byone, Julia (1)..........(Mhtn) New York City
Cazin, Adele (1)..........Hoboken, N. J.
State Normal School, Trenton, N. J., 1896.
Clark, Ada Ranney (2)..........Cresskill, N. J.
Clark, Louise (1)..........Three Rivers, Mich.
Michigan State Normal College, 1898.
Close, Elsie (2)..........Dunmore, Pa.
Teachers College, 1894.
Cole, Blanche Lillian (2)..........(Mhtn) New York City
Corson, Grace Edith (2)..........Detroit, Mich.
Covert, Alice Foote (1)..........Farmer, N. Y.
State Normal School, Oneonta, N. Y., 1897.
Curtiss, Elizabeth (1)..........(Mhtn) New York City
State Normal School, Geneseo, N. Y., 1896.
Davis, Margaret Cameron (1)..........Avalon, Pa.
State Normal School, Indiana, Pa, 1883.
Degen, Catherine Anna (2)..........Clifton Park, N. J.
State Normal School, Geneseo, N. Y., 1891.
Delaney, Harmie Alice (1)..........Gloversville, N. Y.
Devlin, Matthew (2)..........Maspeth, N. Y.
St. Francis College, B. S., 1897.
Dowd, Eleanor M. (1)..........(Q) New York City
State Normal School, Oswego, N. Y., 1890.
Du Bois, Emily R. (1)..........Douglaston, N. Y.
Eastman, Mary Louise (1)..........(Bklyn) New York City
State Normal School, Cortland, N. Y., 1892.
Elliott, Ernest Harry (2)..........(Bklyn) New York City
University of Minnesota, 1896–1898.
Fairchild, Helen Adelaide (1)..........Forestville, Conn.
Oberlin College, 1898–1900.
Fay, Mamie (1)..........(Q) New York City
Ferris, Mary Danforth (1)..........Mt. Vernon, N. Y.
Normal College, New York City, 1890.
Fielder, Louise (2)..........(Mhtn) New York City
Forrest, Gertrude (1)..........(Bklyn) New York City
Frost, Laura Redington (2)..........Meriden, Conn.
Graves, Anna Melissa (1)..........Pikesville, Md.
Womans College, Baltimore, 1899–1900.

Hammond, Anna Bingham (1).............................Amenia, N. Y.
State Normal School, New Paltz, N. Y., 1890.

Hastings, Blanche Mabel (1)........................... .....Palmer, Mass.
Vassar College, 1895–1896; 1899–1900.

Henderson, Marion Livingston (1)..........................Plainfield, N. J.
Hess, Mary Irene, (1)..............................(Mhtn) New York City
Hughes, Margaret Maria (1)........................(Mhtn) New York City
Normal College, New York City, 1876.

Jones, Frances Fahnestock (2)........................North Bethlehem, Pa.
Ikeda, Goroku (1)..Japan
Yamanaski Normal School, 1897.

Irving, Sylvia (1)...................................(Bklyn) New York City
Kennedy, Anna (1)......................................Redbank, N. J.
State Normal School, Trenton, N. J., 1887.

Levens, Belle (2).......................................Albert Lea, Minn.
State Normal School, Mankato, Minn., 1885.

Lever, Lily Carlotta Yendell (1)...................(Bklyn) New York City
Mabrey, Gertrude Estelle (1)..............................Norwich, Conn.
State Normal School, Norwich, Conn., 1896.

Magalleães, Helen Watterson (2)...................(Bklyn) New York City
Martin, Julia (1)..Manchester, Mich.
Michigan State Normal College, 1897.

Martin, May Belle Virginia (1)...........................Springfield, Mass.
Merriam, Edith (2).................................(Mhtn) New York City
Teachers College, 1893.

Miller, Alice Etta (2).....................................Plainfield, N. J.
Mitchell, Julia Rebecca (2)...............................Hoboken, N. J.
MacLear, Anne Bush (2).................................Wilmington, Del.
McRae, Janet (2)..Waco, Texas
Nash, Williametta Orton (1)...............................Norwalk, Conn.
University of Michigan, 1892–1893.

Neer, Mary Louisa (1)....................................Park Ridge, N. J.
State Normal School, Trenton, N. J., 1893.

O'Geran, Annie Susan (1)............................(Q) New York City
State Normal School, Oswego, N. Y., 1890.

Patterson, Jennie Lynn (1)........................(Bklyn) New York City
Pelton, Edith Chester (1)..................................Hartford, Conn.
Phillips, Eleanor M. (2)...Normal, Ill.
Illinois State Normal University, 1895.
Colorado State Normal School, M.Ped., 1898.

Pollock, Rosalie (2)..Fargo, N. Dakota
Pounding, Eloise (1)...................................(R) New York City
State Normal School, Geneseo, N. Y., 1894.

Powers, Frances Mary (1)...........................(Mhtn) New York City
Normal College, New York City, 1879.

Record, Carrie Livermore (1)..........................Chautauqua, N. Y.
State Normal School, Fredonia, N. Y., 1896.

Reeder, Bertha Catherine (1)..........................(Q) New York City
State Normal School, Oneonta, N. Y., 1897.

Riley, Marietta (1)..............................(Bklyn) New York City
Schwabe, Ida (1)................................(Mhtn) New York City
Scribner, Arabella (1)...........................(Mhtn) New York City
Rutgers Female College, L.B., 1876.

Skinner, Ada Maria (2)...................................Columbus, Ohio
State Normal School, Columbus, Ohio, 1889.

Smith, Caroline Harriet (1).........................Blodgett Mills, N. Y.
State Normal School, Cortland, N. Y., 1897.

Smith, Marie Louise (1)..........................(Mhtn) New York City
Normal College, New York City, A.B., 1900.

Staber, Maud Johanna (2)........................(Bklyn) New York City
Staley, Jessie Edith (2).............................Lansingburgh, N. Y.
Tattershall, Fanny (2).................................White Haven, Pa.
Tener, Elizabeth (1)..............................(Mhtn) New York City
Tibbits, Marietta J. (1)...........................(Mhtn) New York City
Normal College, New York City, 1880.

Tomlinson, Cora (1)......................................Plainfield, N. J.
Tuttle, Julia Anna (1)............................(Bklyn) New York City
Valentine, Maud (2)..Lanark, Ill.
Illinois State Normal University, 1890.

Van Pelt, Sarah Elizabeth (2)..........................Morristown, N. J.
Wallace, Margaret L. (1)...........................McMinnville, Tenn.
Cumberland Female College, A.M., 1884.

Wells, Herman Jay (2)............................(Bklyn) New York City
Williams College, B.A., 1887.

Wettlin, Emma Louisa (1)....................................Newark, N. J.
White, Jessie Campbell (2)................................Bradford, Pa.
Williams, Susan Elizabeth (2)...................(Mhtn) New York City
Normal College, New York City, 1889.

Wright, Eva (1).....................................(Q) New York City
State Normal School, Oneonta, N. Y., 1896.

Wyckoff, Harriet Elvira (1).....................................Cuba, N. Y.
State Normal School, Geneseo, N. Y., 1887.

Yudelson, Sophie (1)...............................(Mhtn) New York City

Candidates for the Kindergarten Diploma

Allen, Bird (1)..Weehawken, N. J.
State Normal School, New Paltz, N. Y., 1890.

Austin, Margaret Rebecca (1).................................Canton, N. Y.
St. Lawrence University, Ph.B., 1900.

Bower, Mary Lydia (1)......................................Salisbury, Conn.
State Normal School, New Britain, Conn., 1894–1896.

Brush, Jane Wheeler (2)......................................Geneva, N. Y.

Carey, Henrietta Woodworth (1)........................Norwich, Conn.
Smith College, 1896–1898.

Colburn, Mina B. (2)........................Jamestown, N. Y.

Coles, Alice Belden (2)........................Kingston, N. Y.
Vassar College, A.B., 1899.

Curtiss, Maud L. Brown (1)........................New Britain, Conn.
State Normal School, New Britain, Conn., 1891.

Hallowell, Helen (1)........................(Mhtn) New York City

Leavenworth, Elizabeth (2)........................Passaic, N. J.
State Normal School, Oswego, N. Y., 1892.

Leopold, Cora Rose (1)........................(Mhtn) New York City

Morey, Susan B. (1)........................(Q) New York City

Palmer, Florence Lila (2)........................Tenafly, N. J.

Parsons, Belle (2)........................Washington, D. C.
Wellesley College, 1896–1898.

Wessel, Clara G. (1)........................New Britain, Conn.
State Normal School, New Britain, Conn., 1892.

West, Mary Cheves (2)........................Asheville, N. C.
State Normal College, North Carolina, 1897.

Williams, Bessie Potter (2)........................(Bklyn) New York City

Worden, Alice Jane (2)........................Paterson, N. J.
State Normal School, Paterson, N. J., 1899.

Candidates for the Domestic Art Diploma

Allen, Mary E. (1)........................Ansonia, Conn.
State Normal School, New Britain, Conn., 1888.

Freed, Rose (1)........................(Mhtn) New York City

Noble, Helen Gray (2)........................Jersey City, N. J.

Palmer, Adelaide Root (2)........................(Mhtn) New York City

Palmer, Sarah Danta (1)........................(Mhtn) New York City

Sage, Elizabeth (2)........................(Mhtn) New York City

Stiasny, Florence Frances (1)........................(Mhtn) New York City

Candidates for the Domestic Science Diploma

Beatty, Esther (2)........................Newton, Ia.
Iowa State College, B.L., 1898.

Blandford, Mary (1)........................Los Angeles, Cal.

Bruckman, Rose (1)........................St. Louis, Mo.

Campbell, Josephine (1)........................(Mhtn) New York City

Clark, Matie Pearl (2)........................Kelly, N. Mexico
Leland Stanford, Jr., University, 1896–1898.

Dulon, Mabel Richards (2)........................(Mhtn) New York City

Dutcher, Mary (1)........................(Mhtn) New York City

Eisenhardt, Carrie (1)........................St. Louis, Mo.

Farquhar, Amélie Margaret (1)........................Detroit, Mich.

Geer, Elene Ellsworth (2)........................Hartford, Conn.

Gower, Mary Love (1)........................Los Angeles, Cal.

Griffith, Miriam (1) ... (Mhtn) New York City
Hazzard, Jessica Charles (1) ... Whittier, Cal.
State Normal School, San José, Cal., 1891.
Hildenbrandt, Jennie C. (1) ... St. Louis, Mo.
Hyams, Sarah (2) ... (Mhtn) New York City
Normal College, New York City, 1892–1894.
Joralemon, Belle Hedden (1) ... Orange, N. J.
Mayer, Hattie (1) ... (Mhtn) New York City
Miller, Sarah (2) ... Minneapolis, Minn.
University of Minnesota, 1890–1893.
Perham, Bertha Ellen (1) ... Lestershire, N. Y.
State Normal School, Johnson, Vt., 1888.
Pincomb, Mary J. (2) ... Merriman, Kan.
Kansas Agricultural College, B.A., 1896.
Rich, Jessie Pinning (1) ... Oshkosh, Wis.
State Normal School, Oshkosh, Wis., 1897.
Schmelz, Irma Helen (2) ... (Mhtn) New York City
Simmons, Annie Pendlebury (1) ... Yonkers, N. Y.
Teachers College, 1900.
Strong, Eunice Eliza (1) ... Colchester, Conn.
Tuttle, Gertrude (2) ... Hornellsville, N. Y.
Tuttle, Mary Louise (2) ... Waterbury, Conn.
Wallace, Mary Leighton (1) ... St. Louis, Mo.
Way, Charlotte M. (1) ... Atlantic City, N. J.
Swarthmore College, B.S., 1888.
Leland Stanford, Jr., University, A.B., 1892.
Westgate, Helen Elizabeth (2) ... Middletown, Conn.
Wesleyan University, 1896–1899.
Wilson, Lillie Marian (1) ... Denmark, Me.

Students in the Course in Hospital Economics

Beatty, Elizabeth Maxwell ... Ivy Rock, Pa.
Greiner, Kate Anne ... Buffalo, N. Y.
Hart, Blanche Page ... La Crosse, Wis.
Palmer, Ida Russell ... Rochester, N. Y.
Sullivan, Mary Victoria ... Baltimore, Md.
Underhill, Eleanor Alice ... Port Richmond, N. Y.
Young, Anna R ... South Berwick, Me.

Candidates for the Fine Arts Diploma

Comegys, Glennie Dexter (2) ... Asbury Park, N. J.
Ford, Florence Etna (1) ... Philadelphia, Pa.
Foster, Ethel Elizabeth (2) ... Washington, D. C.
State Normal School, Washington, D.C., 1893.
Friedman, Ella (1) ... (Mhtn) New York City
Kooser, Mary Forward (2) ... Somerset, Pa.
Loftus, Martha Mary (1) ... North Adams, Mass.

McCreary, Jean Cloud (1).............................Shippensburg, Pa.
Cumberland Valley College, B.E., 1899.

Monteith, Caroline (1).............................(Mhtn) New York City

Nicholas, Phoebe Condit (2).............................St. Paul, Minn.

Preble, Grace Rosamond (1).............................(Mhtn) New York City
Rutgers Female College, A.B., 1876.

Rorty, Marion (1).............................Middletown, N. Y.

Stangland, Jessie Cary (1).............................(Mhtn) New York City

Steven, Mabel Jessie (1).............................(Mhtn) New York City

Taylor, Marguerite Henrietta (2).............................Canastota, N. Y.

Turner, Helen Maria (2).............................(Mhtn) New York City
State Normal School, New Orleans, La., 1878.

Whittemore, Amy Pomeroy (2).............................(Mhtn) New York City

Wilkinson, Edith Lake (1).............................Wheeling, W. Va.

Wilkinson, Louise (1).............................Newburgh, N. Y.

Woodruff, John Kellogg (1).............................Bridgeport, Conn.

Worth, Addie Josephine (2).............................Geneva, N. Y.

Young, Elizabeth (2).............................(Mhtn) New York City

Candidates for the Manual Training Diploma

Bacon, Louis Alex. (2).............................Elmira, N. Y.

Barlow, Helen Saunders (2).............................(Mhtn) New York City

Battey, Lewis Birch (1).............................Fall River, Mass.

Bertholf, Katherine Iliff (1).............................Nyack, N. Y.

Blanchard, Ada (1).............................Los Angeles, Cal.

Bookwater, Mary Linton (2).............................Minneapolis, Minn.

Buxton, George Frederick (1).............................Newark, N. J.

Colton, Henry Ewing (1).............................Exeter, N. H.

Gausmann, Anna Bogert (2).............................Leonia, N. J.

Goodrich, Harriet M. (2).............................Grand Rapids, Mich.
University of Chicago, Ill., 1896–1897.

Howe, Edwin J. (1).............................Clarence, N. Y.
State Normal School, Geneseo, N. Y., 1889.

Jacobs, Charles Louis (1).............................(Mhtn) New York City

Laubach, Merit Lees (2).............................Fairmount Springs, Pa.
State Normal School, Bloomsburg, Pa., M. E., 1895.

Lewis, George Lyman (2).............................Syracuse, N. Y.
State Normal School, Oswego, N. Y., 1899.

Linvill, Lucy Anna (2).............................Swarthmore, Pa.

McMurry, Oscar Lincoln (2).............................Chicago, Ill.
Illinois State Normal University, 1879.
University of Michigan, 1881–1882.
Cornell University, 1885–1886.

Pierson, Elizabeth Bradford (1).............................Orange, N. J.

Saam, Caroline Elsa (2).............................Philadelphia, Pa.
State Normal School, Philadelphia, Pa., 1899.

Sargent, William Amos (2).............................Lawrence, Mass.

Staber, Ottilie Pamela (1)..........................(Bklyn) New York City
St. John, Guy B. (1)....................................Winona, Minn.
Thomson, John (1)....................................Jersey City, N. J.
Vincent, Grace (1)....................................Somerville, N. J.
State Normal School, Trenton, N. J., 1893.
Wilburn, Emma Pitman (2)....................................Griffin, Ga.
Capital Female College, 1893.
* Wilmarth, Elmer Humphrey (2)....................Middlebury, Vermont.
Worcester Polytechnical Institute, B. S., 1897.

Students in the Collegiate Course

Asher, Leah (1)..Worcester, Mass.
Baker, Helen Julia (2)............................(Mhtn) New York City
Barrett, Daisy Vivian (1)...............................Bennington, N. Y.
Beegle, Mary Porter (2)...............................Ocean Grove, N. J.
Behr, Elsa (2)....................................(Bklyn) New York City
Blackford, Gay Robertson (2)..........................East Orange, N. J.
Brooker, Janet Harriet (1)...............................Newburgh, N. Y.
Brown, Mary Porterfield (1)..........................(Mhtn) New York City
Budington, Ethel Helena (1)...............................Leyden, Mass.
Butler, Florence Louise (1)................................Orange, N. J.
Carpenter, Lulu Jane (1).............................Port Chester, N. Y.
Clearman, Barbara Wallis (1).....................(Mhtn) New York City
Closs, Rachael Evaline (2).....................................Rose, N. Y.
Cruikshank, Laura Selma (2).......................(Bklyn) New York City
Davidson, Florence Amy (1)..........................Dobbs Ferry, N. Y.
de Guise, Edith Emilie (1)..........................(Mhtn) New York City
Dodd, Matilda Gordon (2).................................Newark, N. J.
Duffy, Lillian R. (2)..............................(Bklyn) New York City
Gomez, Mildred (1)................................(Mhtn) New York City
Gray, L. Carmita (2)....................................Fort Plain, N. Y.
Groser, Faith Menzette (1)..........................White Plains, N. Y.
Hanson, Sarah Reed (1)...........................(Mhtn) New York City
Hubbard, May Boden (1)......................................Bradford, Pa.
Jenkins, Grace Elsie (2)..............................Mt. Vernon, N. Y.
Keil, Caroline Elizabeth (1).......................(Mhtn) New York City
Kydd, Ida Elizabeth (2)...........................(Mhtn) New York City
Lachmund, Laura Mathilda (1)...........................Tappan, N. Y.
Lenehan, Elizabeth (2)....................................Arverne, N. Y.
London, Jeanette Fanny (2).......................(Mhtn) New York City
Lovell, Helen (2)...Plainfield, N. J.
McKeighan, Elinor M. (2).................................St. Louis, Mo.
Merrill, Susan Bliss (2)................................Lexington, Mich.
Mulligan, Frances T. (1)..............................(Q) New York City
Munckwitz, Winifred (1)...........................(Mhtn) New York City
Odencrantz, Tulla Caroline (1)..........................Houston, Texas
Parkhurst, Jessie Estelle (2)...........................Mt. Vernon, N. Y.

* Also a candidate for the Ph.D. degree.

Parrott, Alice Burrows (1) .... Elizabeth, N. J.
Plumb, Clara Charlotte (2) .... Elizabeth, N. J.
Potter, Ella Hatch (2) .... Geneva, N. Y.
Reid, Florence Elizabeth (2) .... Jersey City, N. J.
Reppenhagen, Leila (1) .... Highland Falls, N. Y.
Roberts, Helen E. (2) .... Mt. Vernon, N. Y.
Roe, Estelle (2) .... Branchville, N. J.
Rogers, Sarah Ann Eliza (2) .... (Bklyn) New York City
Sanford, May Thomas (2) .... (Mhtn) New York City
Steele, Minnie Louise (1) .... (Mhtn) New York City
Stevens, Harriet Lillian (1) .... Elbridge, N. Y.
Stryker, Adelaide Beverly (1) .... White Plains, N. Y.
Trube, Jessie Maud (1) .... Hastings-on-Hudson, N. Y.
Vaughan, Marion Moulton (2) .... (Q) New York City
Vinson, Byrd (2) .... (Mhtn) New York City
Westfall, Mabel Josephine (1) .... Mt. Vernon, N. Y.
White, Charlotte (2) .... Orange, N. J.
Wilcox, Bessie Throop (2) .... Rochester, N. Y.
Winward, Carolyn Melissa (1) .... Fall River, Mass.
Wyant, Alice May (2) .... Elizabeth, N. J.

Students not Candidates for a Diploma

SPECIAL STUDENTS

The courses pursued are indicated in parentheses, abbreviated as follows:

(K.)	Kindergarten	(E.)	English
(D.A.)	Domestic Art	(G.)	Geography
(D.S.)	Domestic Science	(H.)	History
(F.A.)	Fine Arts	(M.)	Mathematics
(M.T.)	Manual Training	(S.)	Physical Science
(Ed.)	Education	(Psy.)	Psychology
(B.)	Biology	(P.T.)	Physical Training

Ach, Isidore L. (Ed.) .... Jersey City, N. J.
Alexander, Sarah Ann (E.) .... (Mhtn) New York City
State Normal School, Albany, N. Y.
Appleby, Alfred John (Ed.) .... (Mhtn) New York City
Atkinson, Annie Madeline (Ed.) .... (Mhtn) New York City
Axtell, Florence Josephine (H) .... Deposit, N. Y.
Banwell, Henrietta Maria (Ed., H.) .... (Mhtn) New York City
Behrens, Sophia M. (F.A.) .... (Br) New York City
Bergamimi, Rachael (E.) .... (Mhtn) New York City
Bonnell, Margaret Josephine (S.) .... Newark, N. J.
Bradin, Selina Fenwick (Ed., D. S.) .... Hartford, Conn.
Brewer, Mary Sanford (S., H., Ed., E.) .... (Mhtn) New York City
Brooks, Mary Elizabeth (Ed.) .... (Bklyn) New York City
Burt, Amy Gertrude (S., D.S., and D.A.) .... Plainfield, N. J.
Butterworth, Emily Du Bois (F.A.) .... (Mhtn) New York City
Canter, Sara (D.A.) .... (Mhtn) New York City
Chapin, Nelly Pitts (P.T.) .... Mt. Carmel, Ill.

Cleary, Mary G. (H.)	(Mhtn) New York City
Comings, Josephine Hamilton (F.A. and M.T.)	Hiram, Ohio
Crane, Ella E. (H.)	Canandaigua, N. Y.
Crawford, Eunice (Ed.)	(Mhtn) New York City
Crooker, Frederick Foster (Ed.)	(Mhtn) New York City
Crosby, Martha (E., F.A.)	Brewster, N. Y.
Dalton, Elizabeth (E.)	Jersey City, N. J.
Dickerson, Edna (Ed.)	(Bklyn) New York City
Doherty, Elizabeth Frances (Ed.)	(Mhtn) New York City
Du Bois, Mildred (F.A.)	(Mhtn) New York City
Du Bois, Solomon E. (Ed.)	(Mhtn) New York City
Erwin, Kate Augusta (Ed.)	(Mhtn) New York City
Farley, Mary L. (H.)	(Br) New York City
Farnum, Mary Louise (Ed. K.)	Port Jervis, N. Y.
Fette, Elizabeth Wilhelmina (Ed.)	Salzuflen, Germany
Gall, Marion Dewar (Ed.)	Paterson, N. J.
Green, Jeannie (Ed. H.)	Woodside, N. Y.
Greene, Ethel (E., H., F.A.)	(Mhtn) New York City
Grey, Eva Woodword (Ed.)	(Bklyn) New York City
Griffin, Minnie T. (Ed.)	White Plains, N. Y.
Griswold, Florence Kressler (E., H., S.)	(Mhtn) New York City
Grün, Pauline (Ed., Ger.)	(Mhtn) New York City
Halligan, Thomas Cooper (Ed.)	(Mhtn) New York City
Hamburg, Edwin C. (Ed.)	(Mhtn) New York City
Hix, Melvin (Ed.)	(Mhtn) New York City
Huggan, Agnes Edith (Ed.)	Newark, N. J.
Hughes, Katharine Helen (Ed., H.)	(Mhtn) New York City
Hughson, William Burke (M.T)	San Francisco, Cal.
Hull, Marion Delafield (D.A., and D.S.)	(Mhtn) New York City
Hulse, Emma Antoinette (Ed.)	(Mhtn) New York City
Jenkins, Alice Dunbar (E., Ed., F.A., D.A.)	Natchez, Miss.
Kelly, William Henry (Ed.)	(Mhtn) New York City
King, Ida J. (Ed.)	(Bklyn) New York City
Lilly, Mary M. (Ed.)	(Mhtn) New York City
Lockwood, Mary Ensign (E., Ed.)	Rochester, N. Y.
Maddock, Catherine Loretto (Ed.)	(Q) New York City
Mahon, Mary Elizabeth (Ed.)	(Mhtn) New York City
Mathews, Mary Estelle (E.)	(Mhtn) New York City
Martin, Frances Elizabeth (Ed.)	(Mhtn) New York City
Mast, Josephine (F.)	(Bklyn) New York City
McCabe, Emma A. (H.)	(Mhtn) New York City
McDonald, Mrs. Mary Isabel (Ed.)	(Mhtn) New York City
McGrury, Emma Louisa (E.)	(Mhtn) New York City
McKernan, Christine Eliza (Ed.)	Jersey City, N. J.
Merrell, Charlotte C. (E.)	Denver, Col.
Middleton, Florence (E.)	(Mhtn) New York City
Moore, Elisabeth Putnam (B.)	(Mhtn) New York City
Nichols, Esther Connor (F.A.)	(Mhtn) New York City

O'Connell, Margaret F. (E.)	(Mhtn) New York City
Orcutt, Hortense May (Ed.)	Northampton, Mass.
Orthmann, Elizabeth (Ed.)	(Mhtn) New York City
Palen, Louis Ellsworth (Ed.)	(Mhtn) New York City
Platt, Alethea Hill (F.A.)	(Mhtn) New York City
Preece, Emma L. (E.)	(Mhtn) New York City
Quimby, Ernest Scott (Ed.)	(Mhtn) New York City
Rabenort, William Louis (Ed.)	Paterson, N. J.
Ransome, Josephine Marie (F.A.)	Northumberland, N. Y.
Remy, Renata (E.)	(Mhtn) New York City
Rostetter, Alise Louise (E.)	(Mhtn) New York City
Roys, Mrs. Sarah H. (Ed., D.A.)	(Mhtn) New York City
Ruben, Juliet Barrett (Ph., E., H.)	(Mhtn) New York City
Salberg, Emma Jane (Ed.)	(Mhtn) New York City
Scott, Caroline Wheeler (D.A., D.S.)	West Haverstraw, N. Y.
Seabury, Bertha (B., E., H., F.A.)	Pittsburg, Kansas
Sigerson, Elizabeth G.	(Mhtn) New York City
Smith, Maria Louise (Ed.)	(Mhtn) New York City
Stewart, Clara (Ed., D.A.)	Providence, R. I.
Stix, Florence D.	(Mhtn) New York City
Sundberg, Anna Amida	Newark, N. J.
Taber, Julia Doak (Ed., D.S.)	Poughkeepsie, N. Y.
Taylor, Anna M. (Ed.)	(Mhtn) New York City
Upshaw, May Bradford (Ed.)	(Mhtn) New York City
Wells, Florence Rutherford (Ed.)	(Bklyn) New York City
White, Minnie (E.)	(Mhtn) New York City
Wood, Charlotte (D.S.)	Englewood, N. J.
Wright, Jane (Ed.)	South Orange, N. J.

SUMMARY

Candidates for Higher Diploma	82	
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SUMMER SESSION

1900

ADMINISTRATIVE BOARD

Seth Low, LL.D.
President of the University
Nicholas Murray Butler, Ph.D., LL.D.
Professor of Philosophy and Education, Dean of the Faculty of Philosophy, Director of the Summer Session
James Earl Russell, Ph.D.
Professor of the History of Education, Dean of Teachers College

Faculty

Franklin Thomas Baker, A.M.	*English Language and Literature*
Nicholas Murray Butler, Ph.D., LL.D.	*Philosophy and Education*
George Rice Carpenter, A.B.	*Rhetoric and English Composition*
James McKeen Cattell, Ph.D.	*Psychology*
Richard Elwood Dodge, A.M.	*Geography*
William Hallock, Ph.D.	*Physics*
Abraham Valentine Williams Jackson, Ph.D., L.H.D.	*English*
Cassius Jackson Keyser, A.M.	*Mathematics*
Francis Ernest Lloyd, A.M.	*Botany*
Frank Morton McMurry, Ph.D.	*Theory and Practice of Teaching*
John Angus Mac Vannel, Ph.D.	*Philosophy and Education*
Paul Monroe, Ph.D.	*History*
George Clinton Densmore Odell, Ph.D.	*Rhetoric and English Composition*
Charles Russell Richards, B.S.	*Manual Training*
Watson Lewis Savage, M.D.	*Physical Training*
Edward Lee Thorndike, Ph.D.	*Psychology*

Other Instructors

Jessie Hubbell Bancroft	*Physical Training*
Gustav Hermann Bojus	*Physical Training*
Oswald Rudolf Eklöf	*Manual Training*
Lida Brown McMurry	*Elementary Teaching*
George Ruppert Seikel	*Physical Training*
Amy Schüssler	*Elementary Teaching*
Lucy Hess Weiser	*Manual Training*

GENERAL STATEMENT

The first Summer Session of the University opened July 2, 1900, and closed August 10. The registration days for the Summer Session were July 2 and 3. Examinations for certificates were held on August 9 and 10.

Courses were offered in botany, education, English (including rhetoric and composition), geography, history, manual training, mathematics, philosophy, physical training, physics, and psychology.

Each course consisted of thirty lectures or other exercises, or their equivalent in laboratory or field work. Credit for such courses in the Summer Session as are accepted by the several Faculties of the University in partial fulfilment of the requirements for degrees or for teachers' diplomas, may only be claimed by those who sustained satisfactorily the examination at the conclusion of the course.

The tuition fee for the Summer Session is $25, covering not to exceed two courses of instruction, which is the limit allowed by the regulations.

The usual matriculation fee of $5 is charged to all students who join the University for the first time at the Summer Session. The Gymnasium fee of $5, including the use of the gymnasium, a private locker, and the privilege of the swimming pool, is required of all students who take the practice course in physical training, or who make use of the swimming pool, but is optional for all others.

The Summer Session is open to men and women on equal terms.

For the Announcement of the Summer Session of 1901, which will open on July 8, and offer a wide range of courses, or for information regarding dormitory accommodations, or board and lodging, address Director of the Summer Session, Columbia University, New York.

REGISTER OF STUDENTS

Abbott, Julia Louise.........Charlotte, N. C.............8 West 8th Street
Roanoke College certificate equivalent to A.B., 1895.
Teacher of Mental Science, Charlotte, N. C.
English.

Abbott, Mary....................................111 East 112th Street
Normal College, New York City, 1878.
Teacher in P. S. No. 6, New York City.
Education, English.

Abreu, Leopold G.................................203 West 117th Street
Havana University, Havana, Cuba, A.B., 1884.
Student Columbia University, 1 year.
Mathematics.

Ach, Isidore.........................82 Ogden Avenue, Jersey City, N. J.
Training School, Jersey City, N. J., 1894.
Teacher in P. S. No. 3, New York City.
Education, English.

Adams, Nancy Jane....................416 Pacific Street, Brooklyn, N. Y.
State Normal School, Cumberland Valley, Pa., 1879.
Teacher in Friends' School, Brooklyn, N. Y.
English.

Agnew, Thomas, Jr..............202 Washington Avenue, Bloomfield, N. J.
State Normal School, New Paltz, N. Y., 1898.
Teacher, Bloomfield, N. J.
Geography, Mathematics.

Alexander, Mary Celene..............................408 West 23d Street
Packer Institute, Brooklyn, N. Y., 1860.
English.

Alexander, Sarah Ann...............................203 West 103d Street
State Normal School, Albany, N. Y.
Teacher in P. S. No. 165, New York City.
Botany, English.

Ambrose, Madge.................................665 Lexington Avenue
Brooklyn High School.
Teacher in P. S. No. 150, New York City.
Education.

Appel, Frank John..................................166 West 123d Street
German-American Teachers' Seminary, Milwaukee, Wis., 1896.
Teacher of German in Public Schools Nos. 64 and 66, New York City.
English, *History*, *Psychology*.

Armat, Ann Robinson (Mrs.)..East Orange, N. J......417 West 118th Street
Pratt Institute, Brooklyn, N. Y., 1898.
Teacher, Domestic Art, East Orange, N. J.
Manual Training.

Armstrong, Josephine Ruhama (Mrs.)..Columbia, S. C..408 West 115th Street
Rhode Island State Normal School, 1883.
Teacher, Benedict College, Columbia, S. C.
Education, *English*.

Ashcroft, Carrie.............St. Louis, Mo...........115 West 11th Street
Normal School, St. Louis, Mo., 1887.
Instructor, Forest Park University, St. Louis, Mo.
English.

Atkinson, Annie Madeline (Mrs.).....................236 West 130th Street
Normal College, New York City, 1874.
Teacher in P. S. No. 103, New York City.
Education.

Atkinson, John Hampton.....Athens, O...........1272 Amsterdam Avenue
Ohio University, Ph.B., 1897.
Superintendent of Schools, Columbus, Ky.
Education, *English*.

Axtell, Florence Josephine....Deposit, N. Y.............367 Willis Avenue
Normal School, Oneonta, N. Y., 1897.
Teacher in P. S. No. 143, New York City.
Education, *History*.

Babbitt, Dean Richmond..........Church of the Epiphany, Brooklyn, N. Y.
Episcopal Theological School, B.D., 1886.
University of Wisconsin, LL.D., 1889.
English, *Psychology*.

Badgley, Ida Jane...................163 South 9th Street, Brooklyn, N. Y.
Yates Academy, Chittenango, 1883.
Teacher in P. S. No. 34, Brooklyn, N. Y.
Education, *Psychology*.

Bainbridge, Emma Jane............130 Westervelt Avenue, Plainfield, N. J.
State Normal College, Albany, N. Y., 1898.
Teacher in South 10th Street School, Newark, N. J.
Education.

Baldwin, Arthur Pond..................370 Macon Street, Brooklyn, N. Y.
College of the City of New York, A.B., 1876.
Mathematics, *Psychology*.

Banister, Lydia Sarah..................69 South 10th Street, Newark, N. J.
Woman's College, Baltimore, Md., B.A., 1900.
Education.

Barnaby, Josephine.........Columbus, O..........72 Morningside Avenue
Ohio State University, Ph.B., 1896.
Teacher, High School, Warren, O.
Education, *Psychology*.

Barnes, Frances Vitingoff ....28 West 59th Street
Mrs. Byrnes's private school.
Physical Training.

Barrington, Jennie.................................212 East 35th Street
Normal College, New York City, 1880.
Teacher in P. S. No. 40, New York City.
Education.

Barrington, Sarah..................................212 East 35th Street
Normal College, New York City, 1875.
Teacher in P. S. No. 15, New York City.
Education.

Bartlett, Melvina Antoinette...............61 Willett Street, Jamaica, N. Y.
Girls' High School, Brooklyn, N. Y.
Teacher in P. S. No. 43, Borough of Queens.
Education, Geography.

Bawden, Sarah Elizabeth............................115 West 78th Street
Smith College, B.L., 1894.
Instructor, High School, Bayonne, N. J.
Education.

Bedell, Helen Louisa..................................Montclair, N. J.
Teachers College, 1896.
English, Geography.

Beers, Clarence Hawley......Edgewater, N. J......105 East Houston Street
Hobart College, A.M., 1891.
English.

Beers, Jessica Elizabeth.......Buffalo, N. Y........105 East Houston Street
New York University, Pd.M., 1897.
Principal of Buffalo Seminary, Buffalo, N. Y.
Education, English.

Belcher, Josephine Adams................156 Garside Street, Newark, N. J.
High School, Newark, N. J.
Geography, Physical Training.

Bentley, Sallie Pleasants......Baltimore, Md..........235 West 123d Street
Female School, Va., 1895; Tanneck, Berlin, Germany, 1898.
Teacher, Randolph Harrison School, Baltimore, Md.
Education, Physical Training.

Bergamini, Rachel.................................417 West 118th Street
Normal College, New York City, 1882.
Student at Teachers College, 4 years.
Teacher, Wadleigh High School, New York City.
English.

Bergen, Mary Catherine............................325 Central Park West
Normal College, New York City, 1876.
New York University, 2 years.
Teacher in P. S. No. 3, New York City.
Geography, Physiology.

Blake, Cornelia.............Talladega, Ala...........72 West 124th Street
State Normal College, Florence, Ala., 1898.
Principal, 4th District Agricultural School, Sylacanga, Ala.
Education, English.

Bockie, Maria Pugsley.......Poughkeepsie, N. Y......522 West 123d Street
Normal School, Albany, N. Y., 3 years.
Cooper Union Art School, 2 years.
Instructor of Drawing, Poughkeepsie, N. Y.
Education, Manual Training.

Bohrer, George Gregor...................96 Baldwin Street, Newark, N. J.
Physical Training.

Bollenhagen, Marie Theodore..........331 Greene Avenue, Brooklyn, N. Y.
Training School, Hoboken, N. J., 1879.
Teacher in P. S. No. 72, Brooklyn, N. Y.
English, Geography.

Bond, Lilian Pilcher........Mt. Vernon, Ill..5 Alice Court, Brooklyn, N. Y.
Teacher in P. S., Mt. Vernon, Ill.
Education, English.

Bostwick, Helen Mar..................1333 Pacific Street, Brooklyn, N. Y.
Girls' High School, Brooklyn, N. Y., 1885.
Teacher in P. S. No. 35, Brooklyn, N. Y.
Education.

Bosworth, Melina Amanda....Trenton, N. J....Fiske Hall, Barnard College
Ripley Female College, A.B., 1869.
Teacher, Model School, Trenton, N. J.
Education, English.

Bower, Kate Louise..............145 South 8th Avenue, Mt. Vernon, N. Y.
Normal College, New York City, 1877.
Teacher in P. S. No. 83, New York City.
Education, Geography.

Bower, Mary Lydia...........Salisbury, Conn........600 West 114th Street
Normal School, New Britain, Conn., 1½ years.
Teacher, Hampton Institute, Va.
Education, Psychology.

Brady, Katherine Rogers............72 Van Siclen Avenue, Brooklyn, N. Y.
High School, Brooklyn, N. Y., 1884.
Teacher in P. S. No. 26, Brooklyn, N. Y.
Education.

Brady, Mary Loretta...............................349 East 62d Street
Normal College, New York City, 1879.
Teacher in P. S. No. 70, New York City.
History, Psychology.

Bray, Washington Irving.................................Cliffside, N. J.
State Normal School, Albany, N. Y., 1889.
Principal of Cliffside School, Cliffside, N. J.
Education, Physics.

Brennen, Alfred Theodore Vincent......................2113 Fifth Avenue
College of St. Francis Xavier, A.B., 1897.
Teacher in charge of New York Truant School.
Education, Psychology.

Bridgman, Anne Townsend..........................157 West 123d Street
Student, Barnard and Teachers College.
Teacher, Berkeley School, New York City.
Education, English.

Brink, Melissa Josephine.....Brooklyn, N. Y....Fiske Hall, Barnard College
Mt. Holyoke College, 1871.
Teacher, Girls' High School, Brooklyn, N. Y.
Education, English, Philosophy.

Brinkenhoff, Adolf..................................310 East 12th Street
Graduate Classical Gymnasium, Libau, 1882.
Private teacher of German.
Education, Psychology.

Broderick, Eliza Jane..................................104 East 71st Street
Cathedral University, 3 years.
Teacher in P. S. No. 19, New York City.
Education, Physics.

Broderick, Margaret Veronica..........................104 East 71st Street
Cathedral University, 4 years.
Teacher in P. S. No. 19, New York City.
Education, Physics.

Brooks, Mary Elizabeth................457A Halsey Street, Brooklyn, N. Y.
Stern's School of Languages, New York City, 6 years.
Teacher in P. S. No. 103, Brooklyn, N. Y.
Education.

Broome, Edwin Cornelius.....Seymour, Conn...........344 West 32d Street
Brown University, Ph.B., 1897; A.M., 1898.
Education, English.

Brown, Sarah Jennie.................47 Van Buren Street, Brooklyn, N. Y.
Chautauqua Course, 4 years.
Teacher in P. S. No. 74, Brooklyn, N. Y.
Education.

Burlinson, Mary Cecilia...............................122 East 52d Street
Normal College, New York City, 1874.
Teacher in P. S. No. 77, New York City.
Education, History.

Burnett, Janet Curr..1497 Broadway
Assistant Principal in P. S. No. 87, New York City.
Education, Psychology.

Burrowes, Catharine.........Keyport, N. J............215 East 48th Street
Wellesley College, A.B., 1887.
Teacher, Monticello Seminary, Godfrey, Ill.
English, Geography, Mathematics.

Buscall, Sadie Agnes..................................73 East 104th Street
Normal College, New York City, 1890.
Teacher in P. S. No. 30, New York City.
Education, English.

Buxton, George Fred......................................Portland, Me.
Pratt Institute, Brooklyn, N. Y., 1899.
Teacher, Manual Training School, Newark, N. J.
Manual Training, Philosophy, Physics.

Buzzelle, Helen..............Brooklyn, N. Y...Fiske Hall, Barnard College
High School, Chicago, Ill., 1886.
Teacher in P. S. No. 108, Brooklyn, N. Y.
English.

Byrne, Julia..136 East 56th Street
Ursuline Academy, Santa Rosa, Cal., 1883.
Teacher, New York Truant School.
Education, *Psychology*.

Calhoun, Mary Edwards.................27 Monroe Place, Brooklyn, N. Y.
Teachers College, 1896.
Teacher, Horace Mann School, New York City.
English, *Mathematics*.

Carpenter, Laura Elizabeth.........................308 West 19th Street
Normal College, New York City, 1894.
Teacher in P. S. No. 56, New York City.
Botany, *Education*.

Carter, Mary Walker......................21 Park Street, Montclair, N. J.
Wellesley College, B.A., 1891.
Teacher, High School, Montclair, N. J.
Education, *English*.

Case, Leslie Verne...Naples, N. Y.
State Normal School, Genesee, N. Y., 1897.
Teacher, Washington Irving High School, Tarrytown, N. Y.
Physics.

Chamberlain, Raymond....Milton, N. J..372 Central Ave., Jersey City, N. J.
Illinois Wesleyan University, Ph.B., 1900.
Teacher, Newfoundland, N. J.
Education, *Philosophy*.

Christie, Sarah..............Long Island City, N. Y....220 W. 123d Street
Cooper Union, New York City, B.S., 1898.
Teacher in P. S. No. 6, Long Island City, N. Y.
Education.

Cleveland, Walter Avery......................Irvington-on-Hudson, N. Y.
Massachusetts Institute of Technology, 2½ years.
Private tutor.
Manual Training.

Clifton, Mary Denton.....................................2487 Broadway
Education, *English*.

Closs, Rachael Evaline.......Rose, N. Y.......Fiske Hall, Barnard College
Teachers College.
Education, *Geography*.

Cloutier, Kathryn Marion...............182 Calyer Street, Brooklyn, N. Y.
Girls' High School, Brooklyn, N. Y., 3 years.
Teacher in P. S. No. 34, Brooklyn, N. Y.
Education, *Psychology*.

Cluthe, Herman.......................221 Parsons Ave., Flushing, N. Y.
Upper Canada College, Toronto, Canada, 2 years.
Mathematics.

Coale, Margaret Bell........Toms River, N. J........210 West 102d Street
Wellesley College, 2 years.
Education, *English*.

Cole, Lawrence Wooster......................El Reno, Oklahoma Territory
University of Oklahoma, A.B., 1899.
Superintendent Schools, El Reno, Okla.
Education, *Psychology*.

Combes, Phœbe Anna............................Rockville Centre, N. Y.
Horace Mann School, 1896.
Teacher in P. S. No. 37, Queens Borough, New York City.
Education, *Geography*.

Conboy, Francis Michael...........................630 West 149th Street
St. Francis Xavier College, New York City.
Teacher in P. S. No. 43, New York City.
English, *Physics*.

Connelly, Eulalia Marie..................131 Keap Street, Brooklyn, N. Y.
Girls' High School, Brooklyn, N. Y., 1894.
Teacher in P. S. No. 49, Brooklyn, N. Y.
Education, *Geography*.

Conselyea, Annie Brown (Mrs.)..........155 Halsey Street, Brooklyn, N. Y.
Girls' High School, Brooklyn, N. Y., 1883.
Teacher in P. S. No. 43, Brooklyn, N. Y.
Education.

Cook, Louise.......................530 Hancock Street, Brooklyn, N. Y.
Wellesley College, B.S., 1894.
Teacher, Girls' High School, Brooklyn, N. Y.
Education, *Philosophy*.

Cooney, Genevieve...........Albany, N. Y..........226 Central Park West
High School, 1893; Kindergarten Training Class, 1896, Albany, N. Y.
Assistant Supervisor of Kindergartens, Albany, N. Y.
Education, *Psychology*.

Cooper, Isabella Mitchell.....Troy, N. Y.............520 West 123d Street
Teachers College, 1899.
Teacher, Weingart Institute, New York City.
Education, *English*, *Mathematics*.

Coughlin, Katharine Theresa...29 Lockwood Street, Long Island City, N. Y.
Teacher in P. S. No. 4, Long Island City.
Education, *English*.

Cox, Charlotte Augusta................2590 Ocean Avenue, Brooklyn, N. Y.
State Normal School, Trenton, N. J., 1881.
Teacher in P. S. No. 96, Brooklyn, N. Y.
Education.

Craft, Anna Weekes...................................Glen Cove, N. Y.
Teachers College, 1 year.
Teacher, Corona High School, Corona, N. Y.
Education, *English*.

Crane, Helen Gertrude......Madison, N. J.....Fiske Hall, Barnard College
State Normal College, New Jersey, 1896.
Teacher, Public School, Madison, N. J.
English.

Crane, William Albert...................................Stapleton, N. Y.
Assistant Principal, High School, Stapleton, N. Y.
Education, *Philosophy*, *Psychology*.

Cross, Margaret Elsie........New Orleans, La.......417 West 118th Street
Central Normal College, Ind., B.S., 1888.
Teacher, State Normal School, Natchitoches, La.
Education.

Cruikshank, Laura Selma.....Brooklyn, N. Y........419 West 118th Street
Girls' High School, Brooklyn, N. Y., 1882.
Teacher in P. S. No. 6, Brooklyn, N. Y.
Education, English, Physical Training.

Crumley, Thomas............Cincinnati, O....20 City Hall, New York City
Notre Dame University, A.B., 1896.
English, Psychology.

Cullen, Winifred Teresa......Brooklyn, N. Y...Fiske Hall, Barnard College
Training College, Liverpool, Eng., 1885.
Teacher in P. S. No. 102, Brooklyn, N. Y.
Geography, Psychology.

Cummins, Alexander Griswold, Jr.......................170 Lenox Avenue
Columbia University, A.M., 1898.
English.

Curran, Mary Alice..................................65 East 93d Street
Cornell University (Summer Course), 1899.
Assistant Principal in P. S. No. 166, New York City.
Education, Psychology.

Dalton, Elizabeth..................606 Branhall Avenue, Jersey City, N. J.
Training School, Jersey City, N. J., 1 year.
Assistant Principal in P. S. No. 22, Jersey City, N. J.
English.

Davis, Mary Janet...........Brooklyn, N. Y...Fiske Hall, Barnard College
State Normal School, Oswego, N. Y., 1886.
Education, Geography, Physical Training.

Davis, Matilda.......................................74 West 89th Street
Normal College, New York City, 1868.
Assistant Principal in P. S. No. 20, New York City.
Education.

Demarest, Estella...Nanuet, N. Y.
Barnard College, A.B., 1894.
Teacher in P. S. No. 30, Richmond Borough, New York City.
Education.

Dillhoff, Amy Constance...................823 Jefferson Avenue, Brooklyn
Harvard University (Summer School).
Teacher in P. S. No. 53, Brooklyn, N. Y.
Education, Geography.

Dobbins, Anna Frances.................Whitney Avenue, Elmhurst, N. Y.
High School, Long Island City, N. Y., 1886.
Teacher in P. S. No. 4, Long Island City, N. Y.
Education, English.

Dodd, Edward Arthur................................288 East 10th Street
University of Halle, Wittenberg, Germany, Ph.D., 1897.
English.

Doherty, Elizabeth Frances............................226 East 78th Street
Normal College, New York City, 1875.
Teacher in P. S. No. 147, New York City.
Education, *Mathematics*.

Dolphin, Mary Ellen........Leavenworth, Kan......417 West 118th Street
Kansas State Normal School, 1883.
University of Michigan, 1890.
Superintendent of Public Schools, Leavenworth, Kan.
Education, *Geography*.

Donohue, Sarah Anastasia............................354 Second Avenue
Normal College, New York City, 1880.
Teacher in P. S. No. 86, New York City.
Education, *English*.

Douglas, Agnes......... ....Westchester, N. Y.
Teacher in P. S. No. 97, New York City.
Education, *English*.

Dowd, Eleanor M.....................613 Academy Street, Astoria, N. Y.
State Normal School, Oswego, N. Y.
Teacher in P. S. No. 8, Borough of Queens, New York City.
Education.

Dreyfus, Stella Sabina.............................119 West 111th Street
Normal College, New York City, A.B., 1897.
Teacher in P. S. No. 13, New York City.
Mathematics.

Drumm, Sarah Le Baron..............................40 West 72d Street
St. Agnes's School, Albany, N. Y., 1877.
Principal private school, New York City.
Education, *Geography*.

Dunbar, Susan...Belleville, N. J.
Training School for Teachers, Newark, N. J., 1878.
Teacher Public School, Belleville, N. J.
English, *Psychology*.

Dunne, Sarah Elizabeth......Oxford, N. Y..694 Nostrand Avenue, Brooklyn
Normal School, Oneonta, N. Y.
Teacher in P. S. No. 115, Brooklyn.
Education, *English*.

Dunning, Margaret..................................110 East 18th Street
Vassar College, A.B., 1900.
Physical Training.

Duroe, Vernon Everett...............................332 Lenox Avenue
Cornell University, A.B., 1896.
Teacher in P. S. No. 43, New York City.
English, *Physics*.

Dutcher, Edward Huntington.........................East Orange, N. J.
University of Vermont, A.B., 1882.
Principal, Eastern School, East Orange, N. J.
Education, *Psychology*.

Eastman, Mary Louise.......Brooklyn, N. Y.........417 West 118th Street
Cortland (N. Y.) Normal School, 1892.
Principal, Primary Department, State Normal School, Jamaica, N. Y.
Education.

Ebersole, Sarah Cecelia..... ....Washington, D. C.
Illinois Training School for Nurses, Chicago, Ill., 1894.
Superintendent of Training School for Nurses, Washington, D. C.
Education, English, Physical Training.

Edsall, Mary Elizabeth.................................Oak Ridge, N. J.
Teacher in P. S., Butler, N. J.
Manual Training, Psychology.

Edwards, Charles Frederic..........................318 West 121st Street
Royal Military School, Chelsea, England, 6 years.
English, Physics.

Edwards, Elisha Jay, Jr................................Greenwich, Conn.
Columbia University, 3 years.
English, Philosophy.

Egan, Cecelia Hawkins...........15th Street, Murray Hill, Flushing, N. Y.
Normal School, Trenton, N. J., 1898.
Teacher in P. S. No. 3, Hoboken, N. J.
Education, Mathematics.

Egbert, Katharine Wolcott.................Hope Avenue, Rosebank, N. Y.
State Normal School, New Paltz, N. Y., 1895.
Teacher Public School, Stapleton, N. Y.
Mathematics, Physical Training.

Egbert, Walter Raimee................................Slippery Rock, Pa.
State Normal School, Millersville, Pa., M.Sc., 1885; Illinois Wesleyan University, Ph.B., 1895.
Professor State Normal School, Slippery Rock, Pa.
English, Mathematics.

Elmendorf, Martha Stuart...................138 Avenue D, Bayonne, N. J.
Public High School, Bayonne, N. J., 1883.
Assistant Principal School No. 7, Bayonne, N. J.
Education, Physical Training.

Englar, Margaret Tabitha....Union Bridge, Md.......235 West 123d Street
Woman's College of Baltimore, Md., A.B., 1896.
Teacher, Randolph Harrison School, Baltimore, Md.
Education, Geography.

Erwin, Kate Augusta..............................127 West 106th Street
Normal College, New York City, 1 year.
Teacher in P. S. No. 93, New York City.
Education, History.

Evans, Elinor Vail...................... ....51 West 128th Street
Normal College, New York City, 1889.
Teacher in P. S. No. 83, New York City.
Education, Mathematics.

Fagan, Annie......................147 Conselyea Street, Brooklyn, N. Y.
High School, Brooklyn, N. Y., 1881.
Teacher in P. S. No. 33, Brooklyn, N. Y.
Education, English.

Farnham, Amos William .....Oswego, N. Y...........220 West 24th Street
State Normal School, Oswego, N. Y., 1875.
Teacher, State Normal School, Oswego, N. Y.
Education, Geography.

Farrell, Elizabeth............Utica, N. Y.............519 West 123d Street
State Normal School, Oswego, N. Y., 1895.
Teachers College, 1 year.
English, Physics.

Farrington, Frederic Ernst...............................329 West 83d Street
Harvard University, A.B., 1894.
Teacher, Collegiate School, New York City.
Mathematics, Psychology.

Fish, Perry James............Akron, O..............210 West 127th Street
Akron High School.
Supervisor Manual Training, Akron Public Schools, Akron, O.
Education, Manual Training, Physics.

Flomus, Josephine Watson....Arlington, N. J.........216 East 110th Street
Normal College, New York City, 1880.
Teacher in P. S. No. 83, New York City.
Education, English.

Forbes, Ida Isabel..........................54 Patchen Avenue, Brooklyn
Brooklyn Institute Teachers' Classes.
Teacher in P. S. No. 116, Brooklyn, N. Y.
Education, English.

Foster, Frederick James ....107 West 103d Street
College City of New York, B.S., 1891.
Teacher in P. S. No. 79, New York City.
Mathematics.

Foth, Charles James...Carlstadt, N. J.
Student National German-American Teachers' Seminary, Milwaukee, Wis.
Manual Training.

Foth, George...Carlstadt, N. J.
National German-American Teachers' Seminary, Milwaukee, Wis., 3 years.
Teacher in Jewish Manual Training School.
Manual Training.

Fowler, Alice Allena (Mrs.)..........................122 West 88th Street
Normal College, New York City, 2 years.
Assistant Principal in P. S. No. 19, New York City.
Education, Psychology.

Frank, Maude...................................883 St. Nicholas Avenue
Normal College, New York City, A.B., 1899.
Instructor, Boys' High School, New York City.
Education, English.

Frazier, Moses Leonard................................254 Sixth Avenue
Mt. Union College, Ph.B., 1896.
English, Philosophy.

Fried, Michael....1815 Forbes Street, Pittsburg, Pa...263 West 126th Street
Jewish Theological Seminary, Rabbi, 1899.
Minister of "Tree of Life" Congregation, Pittsburg, Pa.
Education, Philosophy.

Froeligh, Ella Amelia...............................348 West 4th Street
Teacher in P. S. No. 3, New York City.
Education.

Gallagher, Richard Henry.............86 Perkins Street, New Haven, Conn.
Hillhouse High School, Scranton, Pa.
Teacher, Strong School, New Haven, Conn.
Education, Manual Training.

Garlock, Lu Nette Mary..................................Clayton, N. Y.
Normal School, Potsdam, N. Y., 1891.
Teacher in P. S. No. 3, Yonkers, N. Y.
Physical Training.

Garrison, Lena...Passaic, N. J.
Teachers College, 1 year.
Teacher, High School, Passaic, N. J.
English.

Garry, Jane Anita....................121 Barnum Street, Jersey City, N. J.
Training School, Jersey City, N. J., 1883.
Assistant Principal in P. S. No. 4, Jersey City, N. J.
English, Physics.

Gaylord, Addie Martha..Stamford, N. Y..826 Marcy Avenue, Brooklyn, N. Y.
State Normal School, Albany, N. Y., 1874.
Teacher in P. S. No. 15, Borough of Richmond, New York City.
English, Geography.

Gibson, Alice Schieffelin...Croton Falls, N. Y...Fiske Hall, Barnard College
Vassar College, 3 years.
English, Geography.

Gillespie, Jane......Stapleton, N. Y....826 Marcy Avenue, Brooklyn, N. Y.
Normal School, Albany, N. Y., Pd.B., 1895.
Teacher in P. S. No. 15, Borough of Richmond, New York City.
Education, English.

Ginocchio, Jennie...................94 Palisade Avenue, Jersey City, N. J.
Training School, Jersey City, N. J., 3½ years.
Assistant Principal in P. S. No. 26, Jersey City, N. J.
Education.

Glasby, Herbert Stites.................14 Roseville Avenue, Newark, N. J.
Student Columbia University, 1 year.
Mathematics.

Gower, Hattie Frances.......Los Angeles, Cal........500 West 123d Street
State Normal School, San José, Cal., 1882.
Teacher of Sloyd, Public Schools, Los Angeles, Cal.
Manual Training.

Grant, Willis Howard.........McKeesport, Pa.........2190 Seventh Avenue
Harvard University, A.B., 1899.
Teacher, Alinda Preparatory School, Pittsburg, Pa.
Botany, Physics.

Grawn, Charles Theodore....Mt. Pleasant, Mich........417 W. 118th Street
State Normal School, Ypsilanti, Mich., Pd.M., 1897.
Principal, Central State Normal School, Mt. Pleasant, Mich.
Education, Philosophy, Psychology.

Gray, Anna Liguoria.......................................Passaic, N. J.
Brown University, Ph.B., 1899.
Teacher, High School, Passaic, N. J.
Education, English.

Greene, Edna Marguerite....Cold Spring, N. Y........300 West 41st Street
State Normal School, Oneonta, N. Y., 1894.
Teacher in P. S. No. 14, Stapleton, N. Y.
Education, *History*.

Grey, Era Woodward..................32 Cambridge Place, Brooklyn, N. Y.
Cornell University, A.M., 1899.
Education.

Guisinger, Joseph Emmet....St. Petersburg, Fla.......218 West 123d Street
State Normal School, Warrensburg, Mo., B.S.D., 1896.
Superintendent, Public Schools, St. Petersburg, Fla.
Botany, *Manual Training*, *Physics*.

Guyer, Raymond.....................................Columbia University
Student Columbia University, 1 year.
Mathematics.

Haas, Arthur..539 West 141st Street
Columbia University, A.B., 1894; B.S., 1898.
Teacher in P. S. No. 39, New York City.
Education, *Mathematics*.

Hadley, Sarah Louise........South Canterbury, Conn....53 East 20th Street
Wellesley College, A.B., 1896.
Teacher, High School, Willimantic, Conn.
Education.

Hallock, Kate Thomasine Patterson...Queens, N. Y...417 West 118th Street
Normal School, Salem, Mass., 1 year.
Visiting teacher, New York City.
Education.

Hammond, Anna Bingham....Amenia, N. Y...........25 East 130th Street
Normal School, New Paltz, N. Y., 1890.
English, *History*.

Hampton, William Judson................................Chatham, N. J.
Wesleyan University, 1 year.
Pastor, M. E. Church, Chatham, N. J.
English, *Philosophy*.

Haney, John Dearling.................................1233 Third Avenue
New York University, M.S., 1897; LL.B., 1898.
Teacher, Girls' High School, New York City
English.

Haring, Frances Van Dolson...........174 Summer Avenue, Newark, N. J.
Training School, Newark, N. J., 1883.
Teacher, Public School, Newark, N. J.
English, *Mathematics*.

Harriman, Kate...........Kansas City, Mo....Fiske Hall, Barnard College
St. Johnsbury Academy, Vt., 1883.
Teacher, Central High School, Kansas City, Mo.
Education, *Mathematics*.

Harris, Elizabeth Sarah..............................156 East 27th Street
Normal College, New York City, 1884.
Student, Teachers College, 1 year.
Teacher in P. S. No. 6, New York City.
Education, *Philosophy*.

Hatch, Sara Maria................................1869 Amsterdam Avenue
Teacher in P. S. No. 32, Brooklyn, N. Y.
Education, English.

Haushalter, Ida E. (Mrs.).....Akron, O..............210 West 127th Street
High School, Akron, O., 1875.
Supervisor of Sewing and Sloyd, Public Schools, Akron, O.
Manual Training.

Hawkins, Katharine Stockton.....52 Lafayette Avenue, New Brighton, N. Y.
Barnard College, A.B., 1898.
Teacher, McDonald Ellis School, Washington, D.C.
Education, English.

Hayes, Mary Hannah...............................226 East 118th Street
Normal College, New York City, 1879.
Teacher in P. S. No. 21, New York City.
Education.

Head, Mattie Ellen..........Chilocco, Okla....Fiske Hall, Barnard College
Pleasant Hill Academy, Pleasant Hill, Mo., 1 year.
Teacher, Government Indian School, Oklahoma.
Education.

Heermans, Josephine Woodbury (Mrs.)..Kansas City, Mo..417 W. 118th Street
Normal School, Brockport, N. Y.
Principal, Whittier School, Kansas City, Mo.
Education, English.

Helm, Joseph Raymond..............................840 East 141st Street
Student, Gonzaga College, Washington, D. C.
Physical Training.

Heuser, Frederick William Justus........154 Hewes Street, Brooklyn, N. Y.
Student, Columbia College, 3 years.
Education, English.

Hildreth, Helen Rebecca.....Lockport, N. Y..........530 West 123d Street
Teachers College, 1899.
Teacher, Horace Mann School, New York City.
Botany, Manual Training.

Hirsch, Blanche...926 Park Avenue
Normal College, New York City, 1890.
Teacher, Park Avenue School, New York City.
Geography, Mathematics.

Hix, Melvin.......................................2104 Amsterdam Avenue
Normal School, Geneseo, N. Y., 1889.
University of Chicago, Diploma, 1895.
Teacher in P. S. No. 91, New York City.
Education, English, Psychology.

Hodgdon, Josephine Elizabeth.............20 Sidney Place, Brooklyn, N. Y.
New York University, Pd.M., 1891.
Teacher in P. S. No. 110, Brooklyn, N. Y.
English.

Hoefling, Caroline Elizabeth..........................590 East 135th Street
Normal College, New York City, 1888.
Teacher in P. S. No. 153, New York City.
Education, *Geography*.

Hogan, Katherine Elizabeth..........................179 West 76th Street
New York University, LL.B., 1893.
Teacher in P. S. No. 58, New York City.
Education, *English*.

Hollick, Eleanor Adeline..New Brighton, N. Y..Fiske Hall, Barnard College
Staten Island Academy, New Brighton, N. Y.
English, *Physical Training*.

Holran, Rose Anna..................314 Van Brunt Street, Brooklyn, N. Y.
High School, Brooklyn, N. Y., 1888.
Teacher in P. S. No. 10, Brooklyn, N. Y.
Education.

Horan, Mary Louise....................386 Sackett Street, Brooklyn, N. Y.
Teachers Training School, Brooklyn, N. Y., 1896.
Teacher in P. S. No. 30, Brooklyn, N. Y.
Education, *English*.

Horton, Lydiard Heneage..Yonkers, N. Y...120 Broadway, care F. W. Holls
Student, Williams College, 2 years.
English, *Psychology*.

Hotchkiss, Caroline Woodbridge......................268 West 84th Street
Radcliffe College, 1 year.
Teacher, Horace Mann School, New York City.
Botany, *History*.

Howell, Henry Budd........Phillipsburg, N. J.......235 West 120th Street
Columbia College, A.M., 1897.
Superintendent Schools, Phillipsburg, N. J.
Botany, *Philosophy*, *Physics*.

Howland, Rebecca..........Eatontown, N. J..........245 East 49th Street
New Jersey State Normal School, 1891.
Teacher in High School, Freehold, N. J.
English, *Mathematics*.

Hughes, Katharine Helen.............................440 West 43d Street
Normal College, New York City, 1880.
Teacher in P. S. No. 17, New York City.
Education, *English*.

Hughes, Percy...72 East 77th Street
Alfred University, A.B., 1899.
Principal, High School, Greenport, N. Y.
Education, *Philosophy*, *Psychology*.

Hulse, Emma Antoinette............................101 Lawrence Street
Normal College, New York City, A.B., 1894.
Teacher in P. S. No. 17, Borough of Queens, New York City.
Education, *English*.

Hunt, Emeline Keeler..Poughkeepsie, N. Y..339 Lafayette Avenue, Brooklyn
Vassar College, A.B., 1889.
Teacher, High School, Poughkeepsie, N. Y.
Education, *English*.

Huntting, Janet Sarah.......Hartford, Conn....Fiske Hall, Barnard College
Normal School, New Britain, Conn., 1885.
Teacher, Center School, West Hartford, Conn.
Education.

Hurlburt, Mary Frelinghuysen........................18 West 103d Street
Wellesley College, B.S., 1887; A.M., 1893.
Teacher, Wilson College, Chambersburg, Pa.
Education, Physics.

Hurley, Thomas Lester................................117 East 92d Street
Regents' Academic Diploma, 1900.
Education, Psychology.

Ingersoll, Mary Godiva......Pueblo, Col.............419 West 118th Street
Normal College, Colorado, Pd.B., 1897.
Teacher, Territorial Normal School, Las Vegas, New Mexico.
Education, Physical Training.

Jackson, Alice.....................................200 West 105th Street
Normal College, New York City, 1884.
New York University, 1 year.
Teacher in P. S. No. 125, New York City.
Psychology.

Jacob, Florence Alvina............253 Arlington Avenue, Jersey City, N. J.
Training School, Jersey City, N. J., 1896.
Teacher in P. S. No. 15, Jersey City, N. J.
Physical Training.

Jarvis, Ellen Anderson......Brooklyn, Conn....Fiske Hall, Barnard College
Student, Teachers College, 1 year.
Education, English.

Jenckes, Daisy Burghardt.....South Orange, N. J.......133 West 61st Street
Kraus-Bolte Kindergarten School, 1889.
Teacher, Public School, South Orange, N. J.
Education.

Johnson, Hattie Clayton.....Petersburg, Va............246 West 53d Street
Normal and Collegiate Institute, Virginia, 3 years.
Geography, Physical Training.

Johnson, Herman Sydny............................176 West 137th Street
Dickinson College, A.M., 1872.
Teacher in P. S. No. 120, Brooklyn, N. Y.
Education, Psychology.

Johnson, Hilma Amelia............................222 West 39th Street
Normal College, New York City, 1874.
Teacher in P. S. No. 20, New York City.
Education, English.

Johnson, Lilian Elizabeth....Girardville, Pa..........417 West 117th Street
State Normal School, Kutztown, Pa., M.E., 1889.
Teacher, State Normal School, Kutztown, Pa.
Education, Psychology.

Johnson, Susie Virginia......Petersburg, Va............246 West 53d Street
Normal and Collegiate Institute, Virginia, 1889.
Teacher, St. Augustine's School, Raleigh, N. C.
English, Geography, Physical Training.

Jones, Herbert Louis.........Girard, O..............386 West 125th Street
Hiram College, Ph.B., 1894.
Principal, Public School, Youngstown, O.
Education, Geography.

Jones, Susan Judson.........Washington, Pa...........138 East 29th Street
Normal School, Cook Co., Ill., 1898.
Teacher, Public School, Washington, Pa.
Education.

Jones, Viola...........................42 Bay 28th Street, Brooklyn, N. Y,
High School, Brooklyn, N. Y., 2½ years.
English, Physical Training.

Kauffman, Warren Leslie.....................P. O. Box 2, Yonkers, N. Y.
Bucknell College, Ph.B., 1892.
Teacher, High School, Yonkers, N. Y.
Education, Physics.

Keleher, Agnes Teresa..................115 Sixth Avenue, Brooklyn, N. Y.
Training School, Brooklyn, N. Y., 1887.
Teacher in P. S. No. 78, Brooklyn, N. Y.
English, Geography.

Kelly, Bernard Hetherington..........................Westchester, N. Y.
New York University, B.S., 1893.
Teacher in P. S. No. 99, New York City.
Education, English, Philosophy.

Kelly, Eva Florence.....................816 Garden Street, Hoboken, N. J.
Cornell University, B.S., 1900.
Education.

Kelly, William Henry................................153 East 88th Street
Hamilton College, A.M., 1891.
Teacher, Trinity School, New York City.
Education.

Kemper, William Arthur.....Butte, Mont.............526 West 114th Street
High School, Butte, Mont., 1 year.
Latin School of Cambridge, Mass., 1 year.
Mathematics, Physics.

Kenney, Anna Teresa..............................515 West 148th Street
Normal College, New York City, 1876.
Teacher in P. S. No. 86, New York City.
Education, English.

Kenney, Ella Frances. ....515 West 148th Street
Normal College, New York City, 1880.
Teacher in P. S. No. 83, New York City.
Education, English.

Kent, Alice Isabelle..19 Cambridge Place, Bklyn..Fiske Hall, Barnard College
Adelphi Academy, Brooklyn, N. Y., 1883.
Teacher in Adelphi Academy, Brooklyn.
Education, Psychology.

Keppel, Frederick Paul.......................Columbia University, N. Y.
Columbia University, A.B., 1898.
Assistant Secretary, Columbia University.
Education, Psychology.

Kloster, Mary Matilde..................231 Eckford Street, Brooklyn, N. Y.
Training School, Brooklyn, N. Y., 1891.
Education.

Kneil, Sara Margaret........Westfield, Mass....Fiske Hall, Barnard College
State Normal School, Westfield, Mass., 1869.
Teacher in High School, Westfield, Mass.
Education, *English*.

Knox, William John.........Toronto, Ont...........Teachers College Hall
Toronto University, A.M., 1895.
English, *Philosophy*.

Knudson, Mabel Alvord................422 Grand Avenue, Brooklyn, N. Y.
Adelphi College, A.B., 1899.
Education.

Krickl, Maurice......................................31 West 84th Street
Student in Columbia University, 4 years.
Education, *English*.

Kupfer, Elsie...44 West 97th Street
Columbia University, A.B., 1899.
Botany.

Kyte, Florence Leslie....................................Fanwood, N. J.
Columbia University, A.B., 1900.
Teacher in High School, Madison, N. J.
Botany, *Physics*.

La Tourette, Anne Zabriskie..Bayonne, N. J....Fiske Hall, Barnard College
Wykeham Institute, Bergen Point, N. J., 1877.
Teacher in P. S. No. 4, Bayonne, N. J.
Education, *Psychology*.

La Tourette, Margaret McIntyre..Bayonne, N. J..Fiske Hall, Barnard College
Wykeham Institute, Bayonne, N. J., 1880.
Assistant Principal in P. S. No. 3, Bayonne, N. J.
Education, *Psychology*.

Laird, James David..................................341 West 34th Street
Cornell University, B.L., 1895.
Teacher in P. S. No. 18, New York City.
Education, *Philosophy*.

Laird, Samuel Bovyer........Ypsilanti, Mich.........417 West 118th Street
State Normal College, Michigan, 1874.
Ypsilanti College, Michigan, Pd.B., 1896.
Associate Professor, State Normal College, Michigan.
Education, *Philosophy*, *Psychology*.

Lambert, Marcus Bachman.............252 Madison Street, Brooklyn, N. Y.
Lafayette College, A.B., 1882.
Instructor, Boys' High School, Brooklyn, N. Y.
Education, *Psychology*.

Lane, Caroline Boole...................796 Macon Street, Brooklyn, N. Y.
Girls' High School, Brooklyn, N. Y., 1882.
Teacher in P. S. No. 44, Brooklyn, N. Y.
Education.

Langdon, Palmer Hall........Brooklyn, N. Y............218 William Street
Massachusetts Institute of Technology, 1 year.
English.

Leach, Annie Harriet (Mrs.)...........330 Eleventh Street, Brooklyn, N. Y.
Private teacher, Brooklyn, N. Y.
Physical Training.

Lever, Lily Carlotta Yendell............52 St. Felix Street, Brooklyn, N. Y.
Packer Collegiate Institute, Brooklyn, N. Y., 1893.
Teacher in P. S. No. 5, Brooklyn, N. Y.
Education, *History*, *Mathematics.*

Levick, Gertrude Emmeline..........................304 West 102d Street
Boarding Schools in Hanover and Hamburg, Germany.
Botany, *English.*

Levy, Zillah Jane..................................259 West 92d Street
Kindergarten Course, Ethical Culture Schools, New York City, 1892.
Education.

Lewis, Alfred Homes..................................Greenwich, Conn.
Princeton University, 2 years.
Teacher, Lyon School, New York City.
Education, *Psychology.*

Lewis, Henrietta............New Orleans, La........417 West 118th Street
State Normal School, Louisiana, 1895.
Teacher, State Normal School, Louisiana.
Education, *English.*

Lilienfeld, Amelia..................................57 East 117th Street
Normal College, New York City, 1890.
Teacher in P. S. No. 49, New York City.
Education, *Psychology.*

Locke, Jesse Albert..................................New York, N. Y.
Columbia University, A.M., 1899.
Education, *Physical Training.*

Lunt, Howard Leslie.........Riverside, Cal...........521 West 123d Street
Bowdoin College, A.M., 1893.
Superintendent, City Schools, Riverside, Cal.
Education.

Lyon, Edmund Daniel.......Mansfield, O..................2783 Broadway
Ohio Wesleyan University, A.B., 1882.
Superintendent of Schools, Mansfield, O.
Education, *Psychology.*

Lyon, Elvira Nathan...............................201 West 85th Street
Teachers College, 1900.
Education.

McAuliffe, Anna Ellen..............................208 East 90th Street
High School, Great Barrington, Mass., 1882.
Teacher, High School, Corona, N. Y.
Education.

McBride, Jennie Louise................................49 East 106th Street
Student in Dr. Savage's Physical Institute.
Physical Training.

McCabe, Mary Helen....................730 Quincy Street, Brooklyn, N. Y.
Training School, Brooklyn, N. Y., 1889.
Teacher in P. S. No. 85, Brooklyn, N. Y.
Geography.

McClean, Jennie Veronica..........1446 Bushwick Avenue, Brooklyn, N. Y.
Normal College, New York City, 1884.
Teacher in P. S. No. 2, New York City.
Geography, Psychology.

McDonald, Mary Isabel (Mrs.).........................112 East 128th Street
Normal College, New York City, 1880.
Teacher in P. S. No. 57, New York City.
Botany, Education.

McDowell, Laura Eloise......Jamaica, N. Y..........162 West 129th Street
Normal School, Albany, N. Y., 1897.
Teacher, Normal School, Jamaica, N. Y.
Education, Geography.

McKeon, Peter Joseph................................239 West 12th Street
Student Columbia University, 3 years.
English, Philosophy.

McKernan, Christine Eliza..........107A Ocean Avenue, Jersey City, N. J.
Training School, Jersey City, N. J., 1879.
Assistant Principal in P. S. No. 20, Jersey City, N. J.
Education.

McMahon, Mary Elizabeth...........................268 West 127th Street
Normal College, New York City, 1887.
Teacher in P. S. No. 57, New York City.
Education, English.

McQuade, Isabelle Wilmary....................West New Brighton, N. Y.
Normal School, New Paltz, N. Y., 1895.
Teacher in P. S., Richmond Borough, New York City.
Education, Geography.

MacPherson, Margaret Thomburg...Balto., Md..Fiske Hall, Barnard College
Training School, Baltimore Kindergarten Association, 1897.
Teacher, Training School, Baltimore, Md.
Education, Philosophy.

Maddock, Catherine Loretto.........497 2d Avenue, Long Island City, N. Y.
Training School, Albany, N. Y., 1898.
Teacher, Kindergarten, P. S. No. 6, Long Island City, N. Y.
Education.

Magewirth, Julius Otto...............Decatur Avenue, Bedford Park, N. Y.
College of the City of New York, A.B., 1898.
Teacher in P. S. No. 154, New York City.
English.

Magovern, Mary Anne ....65 East 93d Street
St. Philomena's Academy, 1873.
Principal in P. S. No. 166, New York City.
Education, Psychology.

Maguire, Edward Randall............................201 West 91st Street
New York University, LL.B., 1898.
Teacher in P. S. No. 11, New York City.
Education, *English*.

Maguire, Mary Frances............................325 Central Park West
Normal College, New York City, 1886.
Teacher in P. S. No. 125, New York City.
Geography, *Psychology*.

Main, Estella....................................314 West 19th Street
Normal School, Albany, N. Y., 1892.
Teacher in P. S. No. 31, Queens Borough, New York City.
Education.

Mallon, Rose.....................................481 Lowell Street
Normal School, Jamaica, N. Y., 1900.
English, *Physics*, *Psychology*.

Marsh, Harriette Parnal......New Haven, Conn.....463 Manhattan Avenue
Yale University, 1½ years.
Teacher, Boardman Manual Training, High School, New Haven, Conn.
Mathematics, *Physics*.

Marsh, Horace Wilmer..........233A Willoughby Avenue, Brooklyn, N. Y.
Lafayette College, A.M., 1893.
Instructor, Pratt Institute, Brooklyn, N. Y.
Education, *English*, *Philosophy*.

Martin, Caroline Bell Wardlaw........................249 West 48th Street
Andrew College, Georgia.
Principal in P. S. No. 17, New York City.
Education, *English*.

Martin, Frances Elizabeth...........................354 West 18th Street
Normal College, New York City, A.B., 1897.
Teacher in P. S. No. 56, New York City.
Botany, *Education*.

Martin, May Belle Virginia..........................301 West 107th Street
Private instruction.
Teacher, Dr. John MacDuffie's School for Girls, Springfield, Mass.
Education.

Mason, Mabel Kincheon...............................1672 Broadway
University of Toronto, A.B., 1898.
Education.

Mateer, Emma Gregg..................................310 West 138th Street
New York University, A.M., 1896.
Instructor, Normal College, New York City.
English.

Mathewson, Chester Arthur..Cincinnati, O..............350 East 42d Street
Student, Chicago University, 1899.
Teacher, Technical School, Cincinnati, O.
Botany, *Mathematics*.

Meadowcroft, Abbie Jane....Haverhill, Mass.........417 West 118th Street
High School, Haverhill, Mass., 1873.
Principal, Public School, Haverhill, Mass.
Education, *English*.

Meeker, Helen Douglas................................East Orange, N. J.
Pratt Institute, Brooklyn, N. Y., 1895.
Teachers' Manual Training, Atlantic City, N. J.
Manual Training.

Meeks, Cornelia Augusta...........193 Woodworth Avenue, Yonkers, N. Y.
Wesleyan University, Ph.B., 1897.
Teacher, Yonkers High School, Yonkers, N. Y.
Education, *English.*

Mendel, Paula......................................62 East 83d Street
Instructor, Dr. Sach's School for Girls, New York City.
English.

Merrill, Valeria Inez........Peekskill, N. Y...........419 West 118th Street
Student, Vassar College, 1 year.
Teacher, St. Gabriel's School, Peekskill, N. Y.
Geography, *Physical Training.*

Mertz, David Franklin.......Detroit, Mich...........417 West 118th Street
Michigan University, Ph.B., 1895.
English, *Psychology.*

Meyer, Mary Auguste........Utica, N. Y......Fiske Hall, Barnard College
Teachers College, 1 year.
Teacher, Utica Female Academy, Utica, N. Y.
Education, *English.*

Middleton, Florence...............................366 St. Nicholas Avenue
Normal College, New York City.
Teacher in P. S. No. 165, New York City.
Botany, *English.*

Miller, Jennie Craven................................140 West 109th Street
Normal College, New York City, 1883.
Teacher in P. S. No. 116, New York City.
Education, *English.*

Minihan, Julia Agnes...............201 Pavonia Avenue, Jersey City, N. J.
Normal School, Jersey City, N. J., 1877.
Principal in P. S. No. 6, Jersey City, N. J.
Education, *Geography.*

Mitchill, Theodore Clarence...........................151 West 47th Street
Columbia University, A.B., 1886.
Instructor, Boys' High School, New York City.
Education, *History.*

Moore, Arthur..Rockville, Ind.
Wabash College, A.B., 1897.
Teacher, Public Schools, Parke Co., Ind.
Education.

Morgan, Monah Maud..................Washington Avenue and 3d Street
Normal School, Oneonta, N. Y., 1894.
Teacher in P. S. No. 97, New York City.
English, *Mathematics.*

Morris, George..............Brooklyn, N. Y.........417 West 117th Street
Rutgers College, M.S., 1895.
Teacher, Erasmus Hall High School, Brooklyn, N. Y.
Education, *Psychology.*

Morris, Mary...............Louisville, Ky..........417 West 118th Street
High School, Louisville, Ky., 1883.
Teacher, Cutler School, New York City.
Education, *Geography*.

Morris, Sara Wesley.........Newark, N. J............520 West 123d Street
Woman's College, Baltimore, Md., A.B., 1897.
Teacher, Ann Street School, Newark, N. J.
Education.

Mullaly, John Joseph..................................227 East 32d Street
Holy Cross College, Worcester, Mass., A.B., 1900.
Education, *Psychology*.

Mulligan, Frances Teresa.................129 Main Street, Flushing, N. Y.
High School, Flushing, N. Y., 1890.
Teacher in P. S. No. 24, Queens Borough, New York City.
Education.

Mummert, Annie............Greencastle, Pa.........417 West 117th Street
State Normal School, Kutztown, Pa., 1889.
Teacher in Public School, Johnstown, Pa.
Geography, *Mathematics*.

Muse, Jessie.................Atlanta, Ga..............11 West 65th Street
Girls' High School, Atlanta, Ga., 1886.
Teacher, Girls' High School, Atlanta, Ga.
English.

Myhr, Alfhild Finch....................237 Carroll Street, Brooklyn, N. Y.
Girls' High School, Brooklyn, N. Y., 1896.
Teacher in P. S. No. 116, Brooklyn, N. Y.
Education, *Psychology*.

Nairne, Bessie Duncan..............................1845 Seventh Avenue
High School, Brooklyn, N. Y., 1881.
Teacher in P. S. No. 87, Brooklyn, N. Y.
Education, *English*.

Nichols, Ellen Elizabeth................125 Lefferts Place, Brooklyn, N. Y.
Teacher in P. S. No. 42, Brooklyn, N. Y.
Education.

Niles, Edgar Dewitt.................1349 Greene Avenue, Brooklyn, N. Y.
State Normal School, Cortlandt, N. Y., 1885.
Principal in P. S. No. 74, Queens Borough, New York City.
Education, *Mathematics*.

Nolan, Mary Frances................................456 West 58th Street
Teacher in P. S. No. 69, New York City.
Mathematics, *Physics*.

Norsworthy, Naomi....................................Rutherford, N. J.
Student, Teachers College, 1 year.
Psychology.

O'Connell, Margaret Frances..........................210 West 83d Street
Normal College, New York City, 1885.
Teacher in P. S. No. 87, New York City.
Education, *Psychology*.

O'Dell, Lucien Bonapart.....Camargo, Ill.............252 West 121st Street
Indiana State Normal School, 1898.
Superintendent of Schools, Thorntown, Ind.
Education, *Psychology*.

O'Dwyer, Frank..................................2420 Seventh Avenue
Student, Columbia University, 1 year.
Mathematics, *Physics*.

Olmstead, Susan Hawley............................417 West 118th Street
University of Minnesota, B.L., 1888.
Teacher, private school, New York City.
English, *Physics*.

O'Malley, Agnes Cecilia...........178A Stuyvesant Avenue, Brooklyn, N. Y.
New York University, Summer School, 1898.
Teacher in P. S. No. 110, Brooklyn, N. Y.
Education.

Orthmann, Elizabeth..................................216 Lenox Avenue
Diploma of Höhere Töchterschule, Lanenburg, Germany.
Teacher of German, Public Schools, New York City.
Education, *English*.

Osborne, Emma Esther (Mrs.)..Cleveland, O............75 West 94th Street
High School, Cleveland, O., 1878.
English, *History*.

Osborne, Harriet Leah.......Poughkeepsie, N. Y.......244 East 86th Street
High School, Poughkeepsie, N. Y., 1878.
Principal, Central Grammar School, Poughkeepsie, N. Y.
Education, *English*.

Palmer, Lizzie Maude...............328 Clermont Avenue, Brooklyn, N. Y.
Teachers' Training School, Brooklyn, N. Y.
Teacher in P. S. No. 98, Brooklyn, N. Y.
Education, *English*.

Pardee, Sheldon John........Rosebank, Richmond Borough, New York City
Union Christian College, Ph.D.
Principal of P. S. No. 13, Richmond Borough, New York City.
Education.

Parker, Newell D.................................419 West 118th Street
High School, Vineland, N. J., 1890.
Botany, *Physics*.

Patterson, Jennie Lynn................78 Sackman Street, Brooklyn, N. Y.
Training School, Flushing, N. Y., 1892.
Teacher in P. S. No. 58, Queens Borough, New York City.
Education.

Paulsen, Gertrude Meta...............410A Sackett Street, Brooklyn, N. Y.
High School, Brooklyn, N. Y., 1883.
Teacher in P. S. No. 30, Brooklyn, N. Y.
Education.

Pearson, Henry Carr....................................Allegheny, Pa.
Harvard University, A.B., 1892.
Principal, Allegheny Preparatory School, Allegheny, Pa.
Education, *Psychology*.

Peaslee, Grace King.........Boston, Mass.....Fiske Hall, Barnard College
Friends' School, Providence, R. I., 1889.
Teacher of Wood-carving, Newton, Mass.
Manual Training, Psychology.

Peaslee, Josephine Lillian................................Haverhill, Mass.
Teachers College, 1 year.
Education, English.

Phair, Sarah...807 Third Avenue
Normal College, New York City, 2 years.
Teacher in P. S. No. 73, New York City.
Education, Psychology.

Pilgrim, Yancey Calhoun............................Phillipsburg, N. J.
Lafayette College, Ph.B., 1889; M.S., 1892.
Principal, High School, Phillipsburg, N. J.
Student, Teachers College, 1 year.
Education, Psychology.

Pollok, Theodora..................................309 West 113th Street
Teachers College, 1 year.
English, Psychology.

Pond, Jessie Corinne..............................702 West End Avenue
Teachers College, 1892.
Principal, private school, New York City.
Manual Training.

Potter, Sarah Emily.....................................Newark, N. J.
Normal School, Newark, N. J., 1884.
Assistant Principal, Washington Street School, Newark, N. J.
Education, Mathematics.

Powell, Lucy Lee...........Staunton, Va...............3 West 84th Street
Virginia Female Institute, Staunton, Va., 1885.
Teacher, Virginia Female Institute, Staunton, Va.
English.

Preece, Emma Louise................................934 Eighth Avenue
Teacher in P. S. No. 84, New York City.
Education, English.

Quimby, Ernest Scott..............................123 West 121st Street
Wesleyan University, A.B., 1896.
Instructor, Drisler School, New York City.
Education, English.

Rabenort, William Louis...............646 East 25th Street, Paterson, N. J.
Normal School, Trenton, N. J., 1890.
Principal in P. S. No. 5, Paterson, N. J.
Education.

Rafferty, William Bernard..............................New Dorp, N. Y.
St. Lawrence University, A.B., 1890.
Principal in P. S. No. 21, Richmond Borough, New York City.
Education, Philosophy, Psychology.

Raiman, Robert Insall.................492 Madison Street, Brooklyn, N. Y.
Columbia University, A.B., 1900.
Education, Philosophy.

Randolph, Mabel Fitz.................................253 West 93d Street
Teachers College, 1892.
Principal, private school, New York City.
English, History.

Reed, Emma Louisa...................................221 West 4th Street
Wesleyan University, Ph.B., 1899.
Columbia University, A.M., 1900.
Teacher, Normal School, Brockport, N. Y.
English.

Reeve, Charlotte Elizabeth...New Paltz, N. Y......210 Buena Vista Avenue, Yonkers, N. Y.
Normal School, New Paltz, N. Y., 1891.
Teacher, State Normal School, New Paltz, N. Y.
Geography.

Reid, Robert Lincoln................................148 West 91st Street
Student, Columbia College, 1 year.
English, Psychology.

Remy, Renata.......................................112 West 137th Street
Normal College, New York City, A.B., 1900.
Teacher in P. S. No. 94, New York City.
English.

Reuck, Susie Alberta.....................102 Halsey Street, Newark, N. J.
Normal School, Newark, N. J., 1893.
Teacher, Normal School, Newark, N. J.
Education.

Riblet, Mary Variar.................................343 East 68th Street
Normal College, New York City, A.B., 1896.
Teacher in P. S. No. 19, New York City.
English.

Rice, Edith...54 Convent Avenue
Normal College, New York City, 1886.
Librarian, Normal College, New York City.
English.

Richards, Pryce Devereux.........................1773 Amsterdam Avenue
London University, England, 1 year.
Teacher in P. S. No. 95, New York City.
Mathematics.

Ricker, Charles Andrew.............................471 West 145th Street
Amherst College, A.B., 1878.
Teacher in P. S. No. 39, New York City.
Education, Physics.

Riley, Marietta..........................22 Powell Street, Brooklyn, N. Y.
Teachers College, 3 years.
Teacher in P. S. No. 43, Brooklyn, N. Y.
Education.

Ritter, Alice Emily (Mrs.)............466 East 25th Street, Brooklyn, N. Y.
Packer Collegiate Institute, Brooklyn, N. Y., 1881.
Teacher in P. S. No. 93, Brooklyn, N. Y.
Education.

Roberts, Linda S. .... 85 South 2d Street, Brooklyn, N. Y.
High School, Brooklyn, N. Y., 1879.
Teacher in P. S. No. 33, Brooklyn, N. Y.
Education.

Robinson, Cornelia Stagg (Mrs.) .... 219 Greene Avenue, Brooklyn, N. Y.
Packer Collegiate Institute, Brooklyn, N. Y., 1878.
Instructor, Adelphi Academy, Brooklyn, N. Y.
Education, Physical Training, Psychology.

Rogers, Juliette Wallace .... 210 West 57th Street
Peebles and Thompson School, New York City, 1895.
Teacher, Mrs. Gage's school, New York City.
Botany, English, Geography.

Rollinson, Lillian Frances ..... Rahway, N. J .... 157 West 123d Street
Education, English, History.

Roper, Mary Rogers .... Pelham Manor, New York City
Columbia University, A.B., 1896.
Teacher, Miss Low's school, Stamford, Conn.
Education, Geography, Psychology.

Rostetter, Alice Louise .... 77 West 91st Street
Normal College, New York City, A.B., 1899.
Teacher in P. S. No. 125, New York City.
Education, English.

Rothermel, John Jacob .... Lancaster, Pa .... 530 West 123d Street
Franklin and Marshall College, A.M., 1896.
Assistant, High School, Hanover, Pa.
Education, Physics.

Sandman, Ida .... 163 East 89th Street
Normal College, New York City, 1893.
Teacher in P. S. No. 20, New York City.
Physics, Physical Training.

Schaber, Sophia Mary .... Bucyrus, O .... 410 West 115th Street
Teacher, Public School, Bucyrus, O.
Botany, Geography.

Scherzinger, Minnie Anna .... 347 Lenox Avenue
Normal College, New York City, 1878.
Teacher in P. S. No. 158, New York City.
Education, English.

Schiller, Bianca .... College Point, N. Y.
State Normal School, Oswego, N. Y.
Teacher, State Normal School, Jamaica, N. Y.
English, Psychology.

Schodts, Lily Margaret .... 133 East 73d Street
Normal College, New York City, 1891.
Private tutor.
Education, English.

Schoedde, Emma Julia .... 715 Fifth Avenue
Normal College, Cassel, Germany, 1889.
Head of German Department, Miss Brown's school, New York City.
Education, English.

Schramm, Arnold Orestes............................615 West 158th Street
Columbia University, 1 year.
English, *Mathematics*.

Schulte, Charlotte Theodosia..Astoria, N. Y...........220 West 123d Street
Cooper Union, New York City, B.S., 1900.
Teacher in P. S. No. 6, Long Island City, N. Y.
Education.

Schultz, Anna Lydia.........Poughkeepsie, N. Y.......244 East 86th Street
High School, Poughkeepsie, N. Y., 1885.
Teacher, Public Schools, Poughkeepsie, N. Y.
Education.

Schultz, Milly...............Poughkeepsie, N. Y......244 East 86th Street
High School, Poughkeepsie, N. Y., 1876.
Teacher, Public School, Poughkeepsie, N. Y.
Education, *Mathematics*.

Schwabe, Ida..73 East 85th Street
Student, Teachers College.
English, *Geography*.

Scott, Abbie West...........Chilocco, Oklahoma Territory......Fiske Hall, Barnard College
Normal School, Springfield, Mo., 1 year.
Instructor U. S. Indian School, Chilocco, Oklahoma Territory.
Education.

Seligsberg, Alice Lillie..................................1034 Park Avenue
Barnard College, A.B., 1895.
Private teacher in English.
Geography.

Seymour, Arthur Trumbull...........................960 East 169th Street
Cornell University, B.L., 1892.
Teacher, Peter Cooper High School, New York City.
Botany, *Geography*.

Seymour, Grace Varick...............325 Putnam Avenue, Brooklyn, N. Y.
Kingston Academy, Kingston, N. Y.
Education.

Sigmund, John Luther........Carlisle, Pa............359 West 116th Street
Dickinson College, A.M., 1900.
Professor, Dickinson Preparatory School, Carlisle, Pa.
English.

Slavik, William Clarence..............................354 East 51st Street
College City of New York, B.S., 1898.
Teacher in P. S. No. 11, New York City.
Education.

Smith, Amalia Svensson......374 Greenwood Avenue, Richmond Hill, N. Y.
Normal College, New York City, 1881.
Teacher in P. S. No. 20, New York City.
Education, *English*.

Smith, Carolyn Frances....................................23 Bond Street
Howard University, Washington, D. C., 2 years.
Teacher in P. S. No. 48, Jamaica, N. Y.
Education, English.

Smith, Caroline Harriet......Blodgett Mills, N. Y.......198 Rodney Street
Brooklyn, N. Y.
State Normal School, Cortlandt, N. Y., 1897.
Teacher in P. S. No. 89, New York City.
Education, Philosophy, Psychology.

Smith, Clarice Josephine...............................118 East 11th Street
Normal College, New York City, A.B., 1895.
Teacher in P. S. No. 79, New York City.
English.

Smith, Ella Louise.................................146 West 126th Street
Teacher in Peebles and Thompson School, New York City.
Education, Geography.

Smith, Helen Margaret..............................129 West 129th Street
Normal College, New York City, A.B., 1893.
Teacher, Wilson-Vail School, New York City.
Education, English.

Smith, Ida May...........................1637 Fox Street, Newark, N. J.
Certificate of Teachers College, New York, 1893.
Critic, Normal and Training School, Newark, N. J.
Education.

Smith, Marie Louise...................................244 West 32d Street
Teacher in P. S. No. 57, New York City.
Education, Psychology.

Smith, Seymour Lippincott....Brooklyn, N. Y........417 West 118th Street
State Normal School, Geneseo, N. Y., 1883.
Teacher, Polytechnic Institute, Brooklyn, N. Y.
Education, Mathematics.

Solomon, Callie Mac.........Sheffield, Ala..............17 East 9th Street
Alabama State License, 1899.
Teacher, Public School, Sheffield, Ala.
Education.

Specht, Henrietta Antoinette..........................1588 Second Avenue
Normal College, New York City, 3 years.
Physical Training.

Staudinger, Louisa..................84 Bentley Avenue, Jersey City, N. J.
Normal School, Jersey City, N. J., 1879.
Teacher in P. S. No. 23, Jersey City, N. J.
Geography.

Stix, Florence Deitsch (Mrs.)........................475 West 152d Street
Normal College, New York City, 3 years.
Normal Kindergarten Course, Ethical Culture Schools.
Geography.

Stork, Laura...209 East 69th Street
Normal College, New York City, 1876.
Teacher in P. S. No. 59, New York City.
Education, English.

Sullivant, Jane Davison......Columbus, O..Madison Avenue and 49th Street
Teacher, Public Schools, Columbus, O.
English.

Swan, Evelyn..68 West 96th Street
Teachers College, Diploma, 1897.
English.

Swan, Giles John ....435 West 43d Street
College City of New York, A.B., 1897.
Teacher in P. S. No. 51, New York City.
Education, English.

Sweeney, Helen Marie...............................346 West 55th Street
Normal College, New York City, 1884.
Teacher, Girls' High School, New York City.
English.

Symonds, Leveritt Vasmer....Salem, Mass.............Columbia University
Williams College, A.B., 1888.
Principal, High School, Wrentham, Mass.
Botany, History.

Taylor, Sarah McCord.......Portland, Me......Fiske Hall, Barnard College
Michigan University, 2 years.
Education, Psychology.

Terry, Jennie Viola..........Castleton Corners, Richmond Borough,
417 West 117th Street
Student, Teachers College.
Teacher in P. S. No. 28, Richmond Borough, New York City.
Education, Geography.

Timmons, William John..............................846 East 164th Street
College of St. Francis Xavier, 1878.
Teacher in P. S. No. 85, New York City.
Psychology.

Tracy, Elizabeth Jeannette..............161 Warren Street, Brooklyn, N. Y.
Normal College, New York City, 1886.
Teacher in P. S. No. 83, New York City.
Education, English.

Tucker, Louise Emery....483 Putnam Avenue, Brooklyn, N. Y.
Fiske Hall, Barnard College
Adelphi College, A.B., 1900.
Teacher in P. S. No. 44, Brooklyn, N. Y.
English, Philosophy.

Upshaw, May Bradford...........................189 St. Nicholas Avenue
High School, New York City, 1899.
Teacher, Miss Brown's school, New York City.
English, Mathematics.

Van Brunt, Louisa Gilbert................70 Hanson Place, Brooklyn, N. Y.
High School, Brooklyn, N. Y.
Teacher in P. S. No. 6, Brooklyn, N. Y.
Education.

Van Vleck, Mary Elizabeth.............1405 Pacific Street, Brooklyn, N. Y.
High School, Brooklyn, N. Y., 2 years.
Teacher, Curtis School, New York City.
Botany, *Education*.

Van Winkle, Le Roy P............272 McDonough Street, Brooklyn, N. Y.
Boys' High School, Brooklyn, N. Y., 2 years.
Physics.

Wade, Margaret Imogene...............................Asbury Park, N. J.
New Jersey State Normal School, 1876.
Teacher, High School, Asbury Park, N. J.
Mathematics.

Wahlstrom, Leonard William..Indianapolis, Ind.........3 West 115th Street
High School, Moline, Ill., 1896.
Beloit College, Wis., ½ year.
Superviser Manual Training, Indianapolis, Ind.
Education, *Manual Training*.

Walker, Mary Adelaide (Mrs.).......................434 Central Park West
Maryland College, A.B., 1898.
Assistant Principal, Brownell Hall, Omaha, Neb.
Education, *English*, *History*.

Walsh, Elizabeth Blanchard...Louisville, Ky..........419 West 118th Street
Normal School, Louisville, Ky., 1873.
Supervisor of Primary Work, Louisville, Ky.
Botany, *Education*.

Ward, William Van Rensselaer..New Paltz, N. Y......220 West 123d Street
State Normal School, New Paltz, N. Y., 1900.
Teacher, Normal School, New Paltz, N. Y.
Manual Training, *Physics*.

Warner, Sara...............Pittsfield, Mass..........408 West 115th Street
Smith College, 3 years.
Teacher, High School, Chester, Mass.
English.

Waterman, Warren Gookin.............................Southport, Conn.
Yale University, A.B., 1892.
Assistant Professor, Fisk University, Nashville, Tenn.
Education.

Watters, Leah Almeda.......Lockport, N. Y...Fiske Hall, Barnard College
High School, Lockport, N. Y., 1887.
Teacher, Public School, Lockport, N. Y.
Education, *Psychology*.

Weeks, Garnsey.....................................412 East 120th Street
High School, Schuylerville, N. Y.
Mathematics.

Weiss, Carrie Stix (Mrs.).........................Fort Washington, N. Y.
Mrs. Froehlich's private school, 1883.
Botany.

Wells, Florence Rutherford............174 Rutledge Street, Brooklyn, N. Y.
Training School for Teachers, Brooklyn, N. Y., 1895.
Teacher in P. S. No. 22, Brooklyn, N. Y.
Education, Psychology.

Westendorf, Isabel Genevieve........................569 West 183d Street
Normal College, New York City, 1883.
Teacher in P. S. No. 169, New York City.
Botany, Education.

Wharton, Agnes..Belleville, N. J.
High School, Belleville, N. J., 1900.
Mathematics, Physical Training.

Wheeler, Virginia Cecilia............ ....West New Brighton, N. Y.
State Normal School, New Paltz, N. Y., 1895.
Teacher in P. S. No. 16, Richmond Borough, New York City.
Education, Geography.

White, Charlotte. ....33 High Street, Orange, N. J.
Student at Teachers College, New York City.
Botany, English.

Wichman, Frank Maxwell................................Montclair, N. J.
Student, Columbia University, 1 year.
Mathematics.

Wickliffe, Mary Frances......Rock Hill, S. C...Fiske Hall, Barnard College
Due West College, 4 years.
Teacher, Normal and Industrial College, Winthrop, S. C.
Education.

Wiggins, Caroline Martin.......205 Hancock Street, Brooklyn, N. Y.,
530 West 123d Street
High School, Greenport, N. Y., 1881.
Teacher in P. S. No. 106, Brooklyn, N. Y.
English.

Wilcox, Walter Henry........St. Louis, Mo..........417 West 118th Street
High School, St. Louis, Mo., 1876.
Principal, Jackson School, St. Louis, Mo.
Education, Geography.

Williams, Addie Darling..............261 Linden Avenue, Brooklyn, N. Y.
Centenary Collegiate Institute, Hackettstown, N. J., 2 years.
Teacher in P. S. No. 43, Brooklyn, N. Y.
Education.

Wills, Anna ....350 Jefferson Avenue, Brooklyn, N. Y.
Girls' High School, Brooklyn, N. Y., 1892.
Teacher in P. S. No. 74, Brooklyn, N. Y.
Education, Geography, Physical Training.

Winslow, Mary (Mrs.)...............................101 West 89th Street
State Normal School, Oswego, N. Y., 2 years.
Education.

Wolf, James Christopher...Philadelphia, Pa......265 Fairmont Avenue,
Newark, N. J.
Drexel Institute, Philadelphia, Pa., 1 year.
Mathematics, Physics.

Wolfe, Roscoe Vincent..............................526 West 182d Street
College City of New York, 4 years.
Teacher in P. S. No. 63, New York City.
Education.

Wood, Alice Ida............New Brunswick, N. J....419 West 118th Street
Wellesley College, B.S., 1894.
Teacher, Miss Hall's school, Brooklyn, N. Y.
Education, *English*.

Woodard, Clifford Ambrose..............................Oyster Bay, N. Y.
State Normal College, Albany, N. Y., 1893.
Principal, High School, Oyster Bay, N. Y.
English, *Mathematics*.

Wormser, Moritz...836 Fifth Avenue
Columbia University, A.B., 1900.
Physics.

Wright, Jane...South Orange, N. J.
Normal School, Oneonta, N. Y., 2 years.
Teacher, Public School, South Orange, N. J.
Physical Training, *Psychology*.

Wright, Jessie May...Corona, N. Y.
Teachers College, 1 year.
Teacher in P. S. No. 19, Queens Borough, New York City.
Education, *English*.

Yates, Albertis Austin.........................West New Brighton, N. Y.
De Garmo Institute, Rhinebeck, N. Y., 1 year.
Principal in Public Schools Nos. 9, 10, 11, 28, Richmond Borough, New York City.
Education.

Yates, Bessie Daintry.........Kingston, Ont.................1672 Broadway
Queens University, B.A., 1898.
Education.

Yates, William Henry...............................309 West 128th Street
Columbia University, 1 year.
Mathematics, *Physics*.

York, Katherine Maria.......Poughkeepsie, N. Y.......244 East 86th Street
Teacher, Public School, Poughkeepsie, N. Y.
Education, *English*.

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UNIVERSITY BIBLIOGRAPHY

I. Official Publications of Columbia University

Annual Catalogue: describes the organization of the University, and gives a full statement of courses and facilities for research offered during the current year, lists of officers and students, accounts of fellowships, scholarships, and honors offered and conferred, estimates of expenses, requirements for admission and degrees, and the regulations governing the College and the various Schools of the University. Issued each December. Price, 25 cents.

President's Annual Report to the Trustees: issued each November.

Directory of Officers and Students: issued each year soon after the opening of the University; contains the names, office hours, and addresses of the officers of the University, and the names and addresses of the students registered up to the time of publication; revised and reprinted in the Catalogue.

General Catalogue of the Alumni: issued sextennially; contains the names and addresses of all graduates of the University. The current edition is that of 1900. Price, $1.00. For sale at the University Press Bookstore.

Announcements of the various schools of the University are issued in the spring of each year, and contain information concerning admission, expenses, courses of instruction to be given during the coming year, and requirements for degrees. They include:

Announcement of Columbia College, for the work leading to the degree of Bachelor of Arts;

Announcement of the School of Law, for the work leading to the degrees of Bachelor of Laws and Master of Laws;

Announcement of the College of Physicians and Surgeons, for the work leading to the degree of Doctor of Medicine;

Announcement of the Schools of Applied Science, together with the special announcements of the courses in Mining Engineering, Metallurgy, Chemistry, Civil, Electrical, and Mechanical Engineering, and Architecture;

Announcement of the Faculties of Political Science, Philosophy, and Pure Science, for all non-professional advanced work leading to the degrees of Master of Arts, Doctor of Philosophy, and Master of Laws;

Announcement of the Summer Session;

Circular of Information as to Entrance Examinations.

Announcements of several of the departments of the University are issued each spring, and contain full information concerning the work of the coming year in those departments. These circulars are devoted to:

Classical Philology; Comparative Literature; English; Germanic Languages and Literatures; Music; Oriental Languages; Philosophy, Psychology, Education, and Anthropology; Romance Languages and Literatures.

Unless otherwise stated, all the publications above named are distributed without charge upon application to the Secretary of Columbia University.

Publications of Barnard College include:

Announcement of Barnard College: contains full information concerning admission, expenses, courses of instruction, and requirements for the degree of Bachelor of Arts;

Dean's Report: issued yearly.

Distributed without charge upon application to the Dean of Barnard College.

Publications of Teachers College include:

Announcement of Teachers College: issued annually, contains full information concerning the organization, equipment, and work of the institution;

Dean's Report: issued each November;

Circulars describing the work of the following departments:

Manual Training; Domestic Science and Art; Domestic Science, describing a course in Hospital Economics; and Fine Arts.

These may be obtained without charge upon application to the Secretary of Teachers College.

II. The Columbia University Press

The Columbia University Press was organized with the approval of the Trustees of Columbia College and incorporated June 8, 1893, for the purpose of promoting the publication of works embodying the results of original research. The Press is a private corporation, related directly to Columbia University by the provisions that its Trustees must always be officers of the University and that the President of the University shall be the President of the Press.

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During the year ending July 1, 1900,* the Press, through The Macmillan Co., of New York and London, its publishing agents, issued the following:

Government of Municipalities. By Dorman B. Eaton, LL.D., of New York. (8vo, pp. 516, $4.)

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* For previous issues from the Press see the *University Catalogue* for 1899–1900, pages 398–9, or the full Catalogue recently issued by The Macmillan Co.

Statistics and Economics: Part II of "The Science of Statistics." By Richmond Mayo-Smith, Ph.D., Professor of Political Economy and Social Science in Columbia University. (8vo, pp. 468, $3.)

Francis Lieber: His Life and Political Philosophy. By Lewis R. Harley, Ph.D., Instructor in the Central High School, Philadelphia, Pa. (8vo, pp. 214, $1.75.)

Ancient Ideals: A Study of Intellectual and Spiritual Growth. By Henry Osborn Taylor. New edition. Two volumes. (8vo, pp. xi + 461; vii + 430, $5 *net.*)

Also the current numbers of the following:

Biological Series, Studies in English, Germanic Studies, Studies in History, Economics, and Public Law; Indo-Iranian Series, Studies in Literature, Contributions to Philosophy, Psychology, and Education; Studies in Romance Languages and Literatures, *Columbia University Quarterly* and *Teachers College Record.*

III. Serial Studies and Contributions from the University*

Biological Series.—Founded in 1892; devoted to the general problems of biology; managing editors, H. F. Osborn and E. B. Wilson; published for the Columbia University Press by The Macmillan Co., New York; issued irregularly, about one volume a year; price per volume (from 300 to 400 pages), $2.00 to $3.50.

The cell in development and inheritance. By Edmund B. Wilson, Ph.D. Profusely illustrated. (New and revised edition; 8vo, $3.50 *net.*)

Botanical Club, Memoirs of the Torrey.—Founded in 1889; devoted to longer articles than those contained in the *Bulletin;* editor, L. M. Underwood; published by the Club from Columbia University; issued irregularly, about one volume a year; prices on application.

Botany, Contributions from the Department of.—Founded in 1886; devoted to short papers; managing editor, L. M. Underwood; published by the editor, from Columbia University; issued irregularly, but usually one volume a year; price, per volume (about 330 pages and about 30 plates), $5.00.

No. 162. Effect of chemical irritation on the economic coefficient of sugar. By H. M. Richards (1899).——No. 163. Studies in *Sisyrinchium*, V: Two new eastern species. By E. P. Bicknell (1899).——No. 164. Two hitherto confused species of *Lycopodium*. By F. E. Lloyd (1889).——No. 165. A revision of the North American species of *Scleropodium*. By A. J. Grout (1899).——No. 166. Studies in *Sisyrinchium*, VI: Additional new species from the Southern States. By E. P. Bicknell (1899).——No. 167. *Anthurus borealis Burt.* By D. Griffiths (1899).——No. 168. Turgidity in *Mycelia*. By C. C. Curtis (1900).——No. 169. Review of the species of *Lycopodium* of North America. By F. E. Lloyd and L. M. Underwood (1900).——No. 170. Studies in *Sisyrinchium*, VII: The species of British America (1900).——No. 171. Notes on the flora of middle Georgia. By R. M. Harper (1900).

Botany, Memoirs of the Department of.—Founded in 1895; devoted to longer monographs; managing editor, L. M. Underwood; published by the editor, from Columbia University; issued irregularly; list on application.

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* The publications of the year 1899–1900 are given in detail.

Electrical Engineering, Contributions from the Department of.—Founded in 1889; devoted to papers by officers and students; managing editor, F. B. Crocker; published (chiefly reprints) by the editor, from Columbia University; issued irregularly; prices on application.

English, Studies in.—Founded in 1900; issued by authority of the Department of English; published for the Columbia University Press by The Macmillan Co.; issued at varying intervals and prices.

Vol. I.—Joseph Glanvill, a study in English thought and letters of the seventeenth century. By FERRIS GREENSLET, Ph.D. (Pp. xi + 235, $1.50.)

Geological Department, Contributions from the.—Founded in 1892; includes short contributions and longer monographs; managing editor, J. F. Kemp; published (partly original, partly reprints) by the editor, from Columbia University; issued irregularly; prices on application.

Vol. VII, No. 54. Brief review of the titaniferous magnetites. By J. F. KEMP. (33 pp.) ——No. 55. Preliminary report on the geology of Essex county (N. Y.). By J. F. KEMP. (35 pp., 12 plates.)——No. 56. Relation between forestry and geology in New Jersey. Parts I and II. By ARTHUR HOLLICK. (22 pp. and 1 map.)——No. 57. Granites of southern Rhode Island and Connecticut, with observations on Atlantic coast granites in general. By J. F. KEMP. (22 pp., 7 plates.)——No. 58. The Titaniferous iron ores of the Adirondacks. By J. F. KEMP. (45 pp., 9 plates.)——No. 65. A contribution to the geology of the northern Black Hills. By J. D. IRVING. (153 pp., 11 plates.)——No. 66. Report on the relations of the Ordovician and Eo-Silurian rocks in portions of Herkimer, Oneida, and Lewis counties [New York]. By T. G. WHITE. (33 pp., 7 plates.)

Germanic Studies.—Founded in 1899; contain results of original research in Germanic languages and literatures; editors, W. H. Carpenter and Calvin Thomas; published for the Columbia University Press by The Macmillan Co., New York; issued irregularly; price, variable.

Vol. I, No. 1. Scandinavian influence on Southern Lowland Scotch. By G. T. FLOM. (Pp. xv + 83, $1.00.)

History, Economics, and Public Law, Studies in.—Founded in 1891; contain results of original research by students in the School of Political Science; managing editor, E. R. A. Seligman; published by The Macmillan Co., New York; issued one volume or more yearly; price, per volume, $3 to $4.50.

Vol. XII, No. 1. History and functions of central labor unions. By W. M. BURKE, Ph.D. (Pp. 127, $1.00.)——No. 2. Colonial immigration laws. By E. P. PROPER, A.M. (Pp. 92, 75c.)——No. 3. History of military pension legislation in the United States. By W. H. GLASSON, Ph.D. (Pp. 135, $1.00.)——No. 4. History of the theory of sovereignty since Rousseau. By C. E. MERRIAM, Jr., Ph.D. (Pp. 232, $1.50.)

Literature, Studies in. — Founded in 1899; contain results of literary research or criticism by officers or students of the department of comparative literature, or those connected with them in study; editor, G. E. Woodberry; published for the Columbia University Press by The Macmillan Co., New York; issued at varying intervals and prices.

No. 1. A history of literary criticism in the Renaissance. By J. E. SPINGARN. (Pp. vii + 330, $1.50.)——No. 2. Romances of roguery. By F. W. CHANDLER. In two parts. Part I: The picaresque novel in Spain. (Pp. vii + 483, $1.75.)——No. 3. Spanish literature in the England of the Tudors. By J. G. UNDERHILL. (Pp. vii + 438, $1.75.)

Mineralogy, Contributions from the Department of.—Founded in 1892; contains articles and text-books by officers and students; managing editor, A. J. Moses; published by the editor, from Columbia University; issued irregularly (often in reprint); prices on application.

Observatory, Contributions from the.—Founded in 1892; devoted to original research; managing editor, J. K. Rees; published by the editor, from Columbia University; issued irregularly; prices on application.

Pathology, Studies from the Department of.—Founded in 1890; records results of research in the department; managing editor, T. M. Prudden; on sale by J. T. Dougherty, New York; issued irregularly; price, per volume (about 175 pages), $1.00.

Philosophy, Psychology, and Education, Contributions to.—Founded in 1894; original studies by officers and students of this division; managing editor, N. M. Butler; published by The Macmillan Co., New York; issued irregularly; per number, average, 75c.; per volume (about 450 pages), average, $3.00.

Vol. III, No. 2. Syllabus of psychology. By J. H. Hyslop, Ph.D. (Pp. 116, $1.00.)——Nos. 3 and 4. Syllabus of an introduction to philosophy. By W. T. Marvin, Ph.D. (Pp. 164, $1.25.)

Vol. VII, No. 1. Education of the Pueblo child. By F. C. Spencer, Ph.D. (Pp. 96, 75c.)——No. 2. Economic aspect of teachers' salaries. By C. B. Dyke, A.M. (Pp. 84, $1.00.)——No. 3. Education in India. By W. I. Chamberlain, Ph.D. (Pp. 106, 75c.)——No. 4. Horace Mann in Ohio. By G. A. Hubbell, A.M. (Pp. 70, 50c.)

Vol. VIII, No. 1. Imitation in education: its nature, scope, and significance. By J. N. Deahl, A.M. (Pp. 102, 60c.).——No. 2. The historical development of school readers and of method in teaching reading. By R. R. Reeder, Ph.D. (Pp. 92, 60 c.)

Series Announced

Indo-Iranian Series.—Founded in 1900; to contain results of work by instructor or students in the department of Indo-Iranian Languages or others associated with them in study; editor, A. V. W. Jackson; published for The Columbia University Press by The Macmillan Co., New York; issued at varying intervals and prices. (Three volumes in preparation.)

Oriental Literature and Philology, Contributions to.—To be edited by Richard Gottheil.

Physiology, Studies from the Department of.—Founded in 1900; to contain reprints of articles published by officers and students of the department; edited by J. G. Curtis and F. S. Lee. (Three volumes in preparation.)

Romance Languages and Literatures, Studies in.—Founded in 1900; to be edited by Adolphe Cohn and H. A. Todd; published for the Columbia University Press by The Macmillan Co., New York; issued irregularly; several volumes in preparation.

IV. Journals

Issued under the Entire Direction of Officers of Columbia University

Bookman.—Founded in 1895; devoted to the criticism of American and foreign literature in all its forms; containing articles, book reviews, correspondence, and editorial comment upon current events; edited by Harry Thurston Peck; New York, Dodd, Mead, & Co.; monthly (136 pp.), 20c.; per year, $2.00.

Bulletin of the Torrey Botanical Club.—Founded in 1870; devoted to scientific botany in its widest sense; editor L. M. Underwood; published, by the editor, from Columbia University; monthly, 20 c.; per year (about 600 pp., with 30 plates), $2.00.

Columbia University Quarterly.—Continuing, since 1898, the *Bulletin*, founded in 1890; publishes articles on the history, the current activities, and the policy of Columbia, for the information of officers, alumni, and friends of the University; edited by a Committee (Chairman, for 1900, Calvin Thomas); published by The Columbia University Press; quarterly (about 100 pages), 30 c.; per year, $1.00.

Educational Review.—Founded in 1890; devoted to the study of education in all its forms, containing articles, discussions, book reviews, foreign correspondence, and editorial review of current events; edited by N. M. Butler; New York: Educational Review Publishing Co.; monthly (except July and August), 104 pp.; per year, $3.00; foreign, $3.60.

Journal of School Geography.—Founded in 1897; devoted to the interests of teachers of geography; edited by R. E. Dodge; published by the J. L. Hammett Co., Boston and New York; monthly, except in July and August (44 pp.), 15c.; per year, $1.00.

Political Science Quarterly.—Founded in 1886; devoted to the study of politics, economics, and public law; publishes annually about 25 leading articles, especially on questions of current interest, and about 130 reviews, and gives a condensed general record of political events; edited by the Faculty of Political Science (managing editor, W. A. Dunning); Boston and New York: Ginn & Co.; quarterly (about 190 pp.), 75c.; per year, $3.00.

Popular Science Monthly.—Founded in 1872; devoted to the diffusion of science; edited by J. McKeen Cattell, with the assistance of E. L. Thorndike; New York: McClure, Phillips & Company; monthly (112 pages), 25c.; per year, $3.00.

School of Mines Quarterly.—Founded in 1879; official organ of the Alumni Association of the Schools of Science of Columbia University; devoted to the publication of original papers on engineering, metallurgy, chemistry, architecture, mineralogy, and geology; managing editor, R. E. Mayer; published by the editors; $2.00 a year.

Teachers College Record.—Founded in 1899; devoted to the practical educational problems of the Teachers College of Columbia University; edited by J. E. Russell; New York: published for The Columbia University Press by The Macmillan Co.; bi-monthly, except July (about 64 pp.). 20c.; per year, $1.00.

Issued under the Partial Direction of Officers of Columbia University

American Anthropologist.—Founded in 1888; containing original contributions and reviews on anthropology; edited by a board, including Franz Boas; New York: G. P. Putnam's Sons; quarterly, $1.25; per year (about 800 pp.), $4.00.

Americana Germanica.—Founded in 1897; devoted to the comparative study of the literary, linguistic, and other cultural relations of Germany and America; contains original researches, critical articles, and reviews; contributing editors include W. H. Carpenter and Calvin Thomas; New York: The Macmillan Co.; quarterly (about 112 pp.), 75 c.; per year, $2.00.

American Historical Review.—Founded in 1896; directed to promote the interests of historical study in the United States, it publishes reviews of important works, results of original research, documents for the use of investigators, and news of the works of European scholars; six editors, including W. M. Sloane; The Macmillan Co.; quarterly, per year, $3.00.

American Journal of Archæology.—Founded in 1885; official journal of the Archæological Institute of America, publishing papers of the Institute and of the Schools at Athens and Rome and annual reports of these bodies, and issuing special bulletins; associate editors include J. R. Wheeler, New York: The Macmillan Co.; bi-monthly, $1.00; per year, $5.00.

American Journal of Physiology.—Founded in 1898; edited for the American Physiological Society; contains original contributions on purely physiological subjects; seven editors, including R. H. Chittenden and F. S. Lee; Boston: Ginn & Co.; monthly; per year (about 500 pp.), $5.00.

Annals of the New York Academy of Sciences.—Founded in 1824; official proceedings of the Academy of Sciences, including original contributions on all scientific subjects, minutes of meetings, etc.; editor, Gilbert van Ingen; published by the Academy; per volume (3 parts), $3.00.

Bulletin of the American Mathematical Society.—Founded in 1891; containing historical and critical review of mathematical science, lists of new publications, notes on current events in the mathematical world, and many short original articles; editors, F. N. Cole and others; New York: The Macmillan Co.; monthly, except July and August; per year (about 500 pp.), $5.00.

Journal of Comparative Neurology.—Founded in 1891; devoted to the comparative study of the nervous system; includes original contributions, reviews, and notices; associate editors include O. S. Strong, with collaboration of F. S. Lee and others; published at Granville, Ohio; quarterly; per year, $3.50.

Journal of Experimental Medicine.—Founded in 1896; devoted to the interests of scientific medicine; associate editors include R. H. Chittenden and T. M. Prudden; New York: D. Appleton & Co.; per volume (6 parts, about 700 pp.), $5.00.

Journal of Mental and Nervous Diseases.—Founded in 1880; devoted to special articles on diseases of the mind and the nervous system; associate editor, M. A. Starr; New York: Dr. C. H. Brown; monthly; per year, $3.00.

Modern Language Notes.—Founded in 1886; devoted to the interests of the academic study of English, German, and the Romance languages; associate editors include H. A. Todd; published by the editors at Baltimore; monthly, save from July to October, inclusive, 20c.; per year, $1.50; foreign, $1.75.

Psychological Review.—Founded in 1894; devoted to the publication of original researches in psychology, critical articles, and reviews; edited by J. McK. Cattell and J. M. Baldwin (Princeton), with the coöperation of M. Allen Starr and others; published bi-monthly, with an annual index and numerous monograph supplements; New York: The Macmillan Co.; The *Review*, 75c.; per year (about 700 pp.), $4.00; The *Index* (about 200 pp.), $1.00; The *Monograph* (about 500 pp.), $4.00 a volume.

Science.—Founded in 1883; devoted to the advancement of science; edited by J. McK. Cattell, with an editorial committee, including N. L. Britton, H. F. Osborn, R. S. Woodward, and others; New York: The Macmillan Co.; weekly, 15c.; per year (about 2000 pp.), $5.00.

Transactions of the American Mathematical Society.—Founded in 1900; devoted primarily to research in pure and applied mathematics; the official organ of the Society for the publication of important papers read before it; three editors, including T. S. Fiske; New York: The Macmillan Co.; quarterly; per year (about 500 pp.), $5.00.

V. Student Publications at Columbia

The Columbia Law Review, issued under the direction of a board of Editors chosen from among the students of the School of Law on the basis of scholarship, Editor-in-chief J. E. Corrigan, contains articles upon legal questions by recognized authorities both American and foreign, also a department of Notes and digest of current cases of importance. Monthly during the Academic year; about eighty pages; price per year, two dollars.

The Columbia Literary Monthly.—Founded in 1893; a magazine exclusively literary, devoted chiefly to stories, verse, essays, editorials, and book reviews; edited by a board, consisting generally of eight members, including a Barnard representative; monthly, November to June, forty pages; twenty cents a copy, one dollar and a half a year.

The Columbian.—The annual; a bound illustrated volume, containing statistics of athletics, fraternity membership, class achievements, and other valuable information of student life in the University for the year just past; published the week before Christmas by a board of twelve editors from the junior class, six elected from Columbia College, and six from the Schools of Applied Science. The eleventh volume was published by the class of 1901, at one dollar and a half.

The Columbia Spectator.—Changed in 1899 from a weekly to a semi-weekly newspaper; published each Tuesday and Friday throughout the college year; edited by a managing board of six, assisted by an associate staff, averaging fourteen in number; six pages; five cents a copy, three dollars a year.

The Morningside.—Founded in 1896; an illustrated literary magazine, aiming chiefly to reflect the lighter and brighter side of Columbia life; edited by a board, averaging ten members, including a Barnard representative and an art editor; published every third week of the academic year; twenty pages; ten cents a copy, one dollar a year.

The Mortarboard.—An annual corresponding to the Columbian, but more literary in character, including, besides the history of the junior class, poems, stories and sketches, and other reading matter; published early in the second term by a board of about eight, elected from the junior class of Barnard College; price, one dollar.

The Senior Class-book.—A book privately printed by the senior class of Columbia College, through an editorial board, and distributed on class-day. Revived by the Class of 1899 and continued by the Class of 1900 as the *Naughty-Naughtian*, which included, "besides the pictures and autobiographies of the members, several letters from the faculty, the president's address, the history, the prophecy, the valedictory, the yew-tree oration, and the statistics, together with other matter of interest to the class." The price of the two more recent senior class-books is approximately five dollars and a half.

Degrees Conferred during 1899–1900

Bachelor of Arts

Columbia College

Henry Garfield Alsberg
Lee Mansfield Bingham
Samuel John Block
Morton Griswold Bogue
James Floyd Bowman
Hjalmar Hjorth Boyesen, 2d
Roelif Hasbrouck Brooks
John Browne
Melville Henry Cane
Walter Nicholas Clapp
Harrison Clark, Jr.
William Irving Clark, Jr.
Philip Coan
Frederick Dan Huntington Coerr
Rudolph Isaac Coffee
Alfred Einstein Cohn
Michael Marks Davis, Jr.
William Churchill de Mille
Sidney Harry Dixon
Roy Farrell Duffield
David Owen Dunbar
Roger Durham
James Alexander Edwards
Wilbur Bruce Elmore
John Erskine
Joseph Diehl Fackenthal
James Joseph Finnigan
William Mead Lindsley Fiske, Jr.
Melville Jefferson France
Goelet Gallatin
Philip Parkhurst Gardiner
Henry Starr Giddings
John Wesley Gould
William King Gregory
Henry Sydnor Harrison
Everett Merl Hawks
Harwood Hoadley
Irving Morehouse Hoffman
Joseph Parkhurst Howe
Robert Chipman Hull
Pierre Frederic Irving
John Barent Johnson
Harold Anderson Kellock
William Cullen Bryant Kemp
Frank Kidde
James Rintoul Knapp
Loyal Leale
Oscar Lowenstein
Ralph Emerson Lum
Joseph Wild Mackay
James John McKenna, Jr.
Fred Russell McMurry
Arthur Youle Meeker
Albert Joseph Mehler
Samuel Erasmus Moffett
William Underhill Moore
John Muirheid
Giffard Arthur Nelson
Abraham Elijah Neugroschl
Leo David Newborg
Thomas Edward O'Brien
Charles Jones Ogden
David Henry Pollard
George Payn Quackenbos
Robert Insall Raiman
Edward Holman Raymond, Jr.
Harry Hull St. Clair, Jr.
Algernon Sydney Schafer
Alexander Godfrey Smith
Charles William Stoddart
Simeon Strunsky
Louis Clark Tinker
Wallis Smyth Turner
Edwin Joseph Walter
Mayer Joseph Weinstein
Thomas Shirley Whittaker
John Nelson Williams
Charles Whitehead Woodson
Moritz Wormser
Martin Wortman

Also

Hugh McCulloh Birckhead

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Willina Barrick
Agnes Leonard Bennett
Margaret Blossom
Elizabeth Eggleston Bryant
Helen Cole
Margaret Crawford
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Jeannette Bliss Gillespy
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Mildred Hubbard
Florence Hutchinson
Louise Karger
Esther Keagey
Eleanor Keller
Stella Frances Kingsbury
Florence Leslie Kyte
Martha Washington Levy
Florence Lippincott
Elizabeth Hoffman Mapelsden
Hilda Newborg
Virginia Newcomb
Evelyn Osborne
Grace Isabel Pollard
Ellinor Ten Broeck Reiley
Sarah Bertha Rosenstein
Emma Dusinberre Sandford
Cecile Heller Schwed
Cora Arnot Scott
Florence Miller Sill
Edna Belle Simpson
Sara Straus
Mary Brown Sumner
Katharine Van Horne
Julia Cooper Watkins
Mary Caldwell Woodhull
Julie Wurzburger

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Bachelor of Laws

Hugh White Adams, Jr.
Knute Arnegard, A.B.
James McConnell Bailey, A.B.
Everett Larkin Barnard, A.B.
Joseph Maurice Baum
Elliot Stuart Benedict, A.B.
Alexander Max Bing, B.S., A.M.
Ulysses Grant Blackford, A.B.
Hermann Augustus Bolte
Frederic Anson Burlingame, A.B.
Sterling Douglas Carr
William Bruce Cobb
John Joseph Conville
Nathaniel Silleck Corwin
Wilson Naylor Cox
Robert Fuller Denison, A.B.
James Byron Drew, A.B.
Charles Hebard Edwards, A.B.
George Dyre Eldridge, Jr., A.B.
Joseph Kent Ellenbogen
Leo Fishel
Julian Hepworth Hall, B.S.
Louis Harrison Hall, B.S.
Charles Ernest Heydt
George Francis Hickey
Forbes Joseph Holland, A.M.
Lewis M. Isaacs, Ph.B.
Louis Joseph, B.S.
William Thomas Kemp
Isidor Jacob Kresel
Joseph William Lambrecht
Thomas Augustin Ledwith, A.M.
Milton Myron Leiter, A.B.
Charles Levy
William Lipman Levy, Ph.B., A.M.
James Lester Lewine, A.B.
Joseph Clayton Logan, A.B.
William Gilman Low, Jr., A.M.
Herbert James Lyall, A.B.
Edwin Corwin McKeag, A.M.

Kenneth Mackintosh, A.B.
Edward Kirkpatrick Mills, A.B.
Franklin Hubbell Mills, A.B.
Elijah Daniel Miner
Arthur Thornton Morey
George Wilson Morgan, A.B.
Seymour Mork
Archie Bodine Morrison
William Larkin Murphy
Thomas Francis Noonan, A.M.
Benjamin Frank Norris
William Rutger John Planten
Edward Graves Pringle, A.B.
Albert William Putnam, A.B.
Henry Thomas Randall, A.B.
Frank Paine Reilly, A.B.
Mathew Ignatius W. Riley, A.B.
William Henry Robbins
Roy Martin Robinson, A.B.
John Krapp Roll, A.B.
Sidney Rosenbaum
Charles Meyer Rosenthal
Herbert Francis Roy, A.B.
George E. Ruppert
Joseph Thomas Ryan
John Godfrey Saxe, A.B.
Abraham Lincoln Schwersenski
Thomas Gaskell Shearman, Jr., A.M.
Claude Crayton Smith, A.B.
Charles Anshel Son, A.M.
Max Jonas Spiegel
Eugene Edward Spiegelberg, A.M.
Arthur Barnett Spingarn, A.M.
Sydney Wilfred Stern, A.B.
William Adams Walker Stewart, A.B.
William Dexter Stiger, B.S.
Morris Lincoln Strauss, A.M.
Frank Edward Stripe
Elisha Sylvester Theall
Myndert James Van Kleeck, B.S., M.L.
Stallo Vinton, A.M.
Clarence Frederick Walker
Sedley Lynch Ware, A.B.
Abraham Mordecai Wattenberg
Orson John Weimert
Samuel Copp Worthen, A.B.
Frank Bernard York

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Doctor of Medicine

Theodore Jacob Abbott, A.B.
Charles Baker Adams, A.B.
Sigmund Arthur Agatston
David Esterbrook Alexander
William Thomas Allen
Carl Lucas Alsberg, A.B.
Milton Julius Ballin, Ph.B.
Leon Bandler
Edward Woodruff Banta
Edwin Lorendus Bebee, A.B.
Eugene Paul Bernstein, B.S.
Joseph Bieber
Arthur Walker Bingham, A.B.
John Fielding James Black, V.S.
Jules Leon Blumenthal
Harry Benjamin Breckwedel
Daniel Bradley Brinsmade, A.B.
William Wallace Brooke
Thomas Evans Westman Brown, B.S.
Roderick Byington, B.S.
Henry Arthur Cassebeer, Jr., A.B.
Herbert Louis Celler, A.B.
Guy Hunt Cochrane, A.B.
Frank Lawrence Cochrane
Karl Albert Connell
Charles Ward Crampton
Claude Granville Crane
Frank Bethel Cross
Everett Field Darling, B.S.
George Edward Deely, A.B.
Augustus Fred Dempewolff
Norman Edward Ditman, Ph.B.
Harry Gaylord Dorman, A.B.
Daniel Michael Driscoll
Francis Duffield, A.B.
Joseph William Dwyer
Chauncey Valentine Everitt
Clarence Fahnestock
Ernest Fahnestock
Adam Edward Fendrich

Edmund Prince Fowler
Robert Tilden Frank, A.B.
Lewis Fox Frissell, A.B., A.M.
John Arthur Funk, A.B.
Milton Gershel, B.S.
Marcus Leopold Goodman
James Frank Graham, Jr.
James Edward Grant, B.S.
Philip Michael Grausman
Stith Gordon Green, A.B.
Robert Hurtin Halsey, A.B.
Howard Chapin Hanscom, A.B.
Ralph Augustus Hayt
Otto Hensel, Ph.G.
George Jenkinson Holmes
Joseph Harry Honnet
Ransom Spafard Hooker, B.L.
Lester Page Hoole, A.B.
Jacob Horowitz
Frederick Charles Horsford, Ph.G.
Adam Wendell Hubschmitt, A.B.
Edward Hyatt Hutton, A.B.
Edward Gibson Hynes, A.B., A.M.
Leo Jacoby
Meyer Jedel
Philip Van Kuren Johnson
Mortimer Dunham Jones
Samuel Kahn
Aquinas Sarsfield Kelly
Thomas Joyce Lenox Kennedy
Leroy Gresham Kirkman, A.B.
Frederick Knowles
Arthur Sinclair Knudsen, A.B.
Jacob Koronefsky
Maurice Hill Krebs
Ernest Frederick Krug
Edwin Walter Landes
Samuel Salisbury Lathrop
Norman Jacob Lebhar
Edward Levy
Ralph Waldo Lobenstine, A.B.
Leslie Clifford Love, A.B.
Henry Hamilton Moore Lyle
Geoffrey Westropp Macdougall
Jacob Mantinband
Irving Margulies
Jacob Margulis
Elias Joseph Marsh, Jr., A.B.
Paul Frederic Martin, M.D.
Thomas Aloysius Martin, B.S.
Urban Francis Martin, B.S.
Lucius Julius Mason, B.L.
Andrew Joseph McLaughlin
Paul Ernest William Menk, Ph.G.
Franklyn Henry Miller
Willard Pierrepont Millspaugh, A.B.
Walter Clark Montgomery
Eli Moschcowitz, A.B.
L. Howard Moss
Conrad Mund, A.B.
James Frank Navoni
Cornelius James Noonan
Charles Edward North, A.B.
Joseph O'Dwyer
David Henry Orgel
Maurice Packard, Ph.B.
Charles Emonual Eugene Pannaci
William Vincent Pascual
Henry Stuart Patterson, A.B.
Charles Edward Pearson
Paul Monroe Pilcher, B.S.
Frederick Standish Pindar
John Green Pittman, A.B.
Isaac Israel Plotz
Henry Benjamin Polatsak
Elisha Pender Porter, A.B.
Barnett Quel
William O'Gorman Quinby
Meyer Rabinovitz
George Henry Reichers
Charles Hermann Reinsberg, A.M.
Henry Reiss
Harry Badger Reynolds, A.B.
Lester Laurens Roos
William Rosensohn, A.B.
Norman Leslie Rowe, Jr.
Henry Suydam Satterlee, A.B.
Norman Brown Saunders
Major Gabriel Seelig, A.B.
Robert Henderson Shanahan
Milton Allison Shangle
Theodore William Simon
Fred Willard Smith
Harry Victor Aloysius Smith

Philip Smith
Alfred Baker Spalding, A.B.
Max Stern
James Fleury Stewart
Frank Stradling
Luther Anson Todd
Rolland Davis Tomlinson
Edward Livingston Trudeau, Jr., A.B.
Cornelius Van Der Clock
George Bickford Van Doren, A.B.
Albert Bensen Van Vranken, Ph.B.
Karl Max Vogel, Ph.G.
Irving Lee Walker
Philip Carter Washburn, A.B.
David Boughton Wason
Leonard Gruner Weber
Ver Nooy Wayland Weed
Richard Weil, A.B.
Julius William Weinstein
Louis Weiss
Faneuil Suydam Weisse, A.B.
John Edgar Welsh, A.B.
Jonathan Godfrey Wells
William Louis Wheeler, B.S.
John Francis White
Miller Royal Whitenack, B.S.
Arthur Starkey Wilson
Edward Earl Wilson
William Caldwell Wilson
Walter Henry Winchester
Allen Lawrence Winter

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Also the following, awarded during the year:

Max Bresler
Frederick Siebert George
John Laurence Hughes
James Ogilvie, A.B.
Palmer Augustus Potter, B.S.
Frank Rufus Searles
Joseph Minnelli Severino

Engineer of Mines

Harold Thomas Dickinson
Robert Mulford Fisher
Jesús de la Fuente
John Allen Fulton
Charles Knap Hitchcock, Jr., A.B.
James Farley McClelland
Oscar Butler Perry, A.B.
Reno Haber Sales, B.S.

[8]

Civil Engineer

Max Feldman
Gerardo Immediato
Llewellyn Le Count
Robert Lawrence Spiller
Julius Ralph Wemlinger

[5]

Electrical Engineer

Nathan Babcock Ambler
Oscar Carlos Bacot
Ernest Robinson Bard
Louis William Bates
Walter Preston Briggs
Hugh Auchincloss Brown
Dawson Jabez Burns
William John Cassard, Jr.
Edward Sears Clinch, Jr.
Arthur Newcomb Dusenbury
Augustus Alphonsus Frank
Robert Hogue Goodwillie
William Price Heinekin
Warren Canfield Jessup
John Leonard Kebler
Ferdinand Eli Koscherak
Manuel Enrique Rionda
Joseph Martin Roman
Frank Gerard Smith
Nathan Clarence Solomon, B.S.
Eugene Herbert Wessels

[21]

Bachelor of Science
(Course in Analytical and Applied Chemistry)

David Charles Eccles
Edgar Josephson
Hugh Philip Tiemann
[3]

Bachelor of Science
(Course in Architecture)

Edward William Bartberger
Robert Curry
Robert Huger Elliott
Marshall Thomas James
Arthur Kaufmann
Eugene Jerome Lang
Franklin Baker Lefferts
Ludwig Lindenmeyr
Lynn Grover Lockwood
Francis Augustus Nelson
Samuel Edward Plousky, A.B.
Gustave Erwin Steinback
Louis Angelo Walsh
[13]

Also the following, awarded during the year:

Engineer of Mines

Jasper A. McCaskell, E.E.
Christopher Henne, 2d, A.B.
Asa Warren Parker, Jr., A.B.
[3]

Electrical Engineer

Richard Bigelow
Harrison Kerr Bird
Benjamin Bricklyn Tilt
Carl Hans Vom Baur
[4]

Bachelor of Science
(Course in Analytical and Applied Chemistry)

Walter Cassamajor

Bachelor of Science
(Course in Architecture)

Edward Lansing Satterlee
John Townsend Williams, Jr.
[2]

Master of Arts

Nancy Semple Acheson,
B.L., Pennsylvania College, 1898.
Carl Lucas Alsberg,
A.B., Columbia University, 1896.
Lawrence Edgar Armstrong,
Ph.B., Ohio University, 1894.
Knute Arnegard,
A.B., University of North Dakota, 1897.
Walter Whipple Arnold,
A.B., University of Rochester, 1898.
Jacob Jay Aronson,
A.B., College of the City of New York, 1898.
Frederick Clark Averill,
Ph.B., University of Michigan, 1898.

Charles Adkins Baker,
A.B., Columbia University, 1899.
Franklin Thomas Baker,
A.B., Dickinson College, 1885; A.M., 1889.
Agnes Baldwin,
A.B., Columbia University, 1897.
Howard J. Banker,
A.B., Syracuse University, 1892.
May Banta,
B.S., Wellesley College, 1899.
Moses Beckhardt,
B.S., College of the City of New York, 1894.
Le Roy Mason Beeman,
A.B., Wesleyan University, 1895.
Rosalie Bloomingdale,
A.B., Columbia University, 1899.
Sarah Helen Bogart,
A.B., Wellesley College, 1889.
Leopold Boroschek,
B.S., College of the City of New York, 1897.
Archibald Lewis Bouton,
A.B., Amherst College, 1896.
William Aspenwall Bradley,
A.B., Columbia University, 1899.
Alice Gertrude Brickelmaier,
B.S., Cornell University, 1899.
William Warren Bross,
A.B., Columbia University, 1899.
Ernest Abraham Cardozo,
A.B., Columbia University, 1899.
John H. Chase,
B.S., Amherst College, 1896.
Alfred Thurston Child,
A.B., Amherst College, 1898.
Helen Lillie Cram,
A.B., University of Vermont, 1879.
Bergen Davis,
B.S., Rutgers College, 1896.
Thomas Herbert Dickinson,
Ph.B., Ohio State University, 1899.
Norman Edward Ditman,
Ph.B., Yale University, 1896.
Florence Anderson Dowden,
A.B., Columbia University, 1897.
James Byron Drew,
A.B., Curry University, 1896.
Charles Henry Ellard,
A.B., Columbia University, 1897.
Julia Hutchins Farwell,
A.B., Columbia University, 1898.
Adelbert Howard Finney,
Ph.B., University of Michigan, 1896.
Robert Tilden Frank,
A.B., Harvard University, 1896.
Charles Royall Frazer,
A.B., Yale University, 1899.
Lucia Fessenden Gilbert,
B.L., Smith College, 1897.
Virginia Crocheron Gildersleeve,
A.B., Columbia University, 1899.
Walter Baber Graham,
A.B., University of Kansas, 1899.
Robert Hurtin Halsey,
A.B., Columbia University, 1896.
John Smith Harrison,
A.B., Columbia University, 1899.
Rodney Mulford Heggie,
A.B., New York University, 1899.
Bernard Schmaltz Heller,
B.S., College of the City of New York, 1897.
George Sidney Hellman,
A.B., Columbia University, 1899.
Christopher Henne, 2d,
A.B., Leland Stanford, Jr., University, 1896.
Nellie Priscilla Hewins,
B.S., Cornell University, 1898.
Bert Hodge Hill,
A.B., University of Vermont, 1895.
Masumi Hino,
B.D., Doshisha University, Kyoto, Japan, 1897.
Gertrude Mary Hirst,
A.B., Newnham College, Cambridge, 1890.

Charles Knap Hitchcock, Jr.,
A.B., Columbia University, 1897.
Warren Lanning Hoagland, Jr.,
A.B., Wesleyan University, 1898.
Edwin Bissell Holt,
A.B., Harvard University, 1896.
Lewis Montefiore Isaacs,
Ph.B., New York University, 1897.
Alice Rebekah Jackson,
B.S., Wellesley College, 1891.
Joseph Perry Jackson,
A.B., Oskaloosa College, 1877; A.M., 1880; LL.B., Iowa State University, 1879.
Perry Wilson Jenkins,
A.B., Miami University, 1890; A.M., 1893.
Max Philippe Lazard,
B. ès L., University of Paris, 1893; Licencié ès Lettres, 1894.
Louis Sampter Levy,
A.B., Yale University, 1898.
Abram Lipsky,
Ph.B., University of Rochester, 1895.
Joseph Clayton Logan,
A.B., Roanoke College, 1897.
Lily Logan,
A.B., Tulane University, 1897.
Harry M. Markson,
Ph.B., Cornell University, 1898.
George Matthew,
A.B., Columbia University, 1899.
Joseph Spencer Menline,
A.B., College of the City of New York, 1898.
Shozaburo Miki,
Graduate of Higher Commercial College, Tokio, Japan, 1897.
Ernest Allen Miller,
B.S., Cornell University, 1899.
Henry Bedinger Mitchell,
E.E., Columbia University, 1898.
Herbert Raymond Moody,
B.S., Massachusetts Institute of Technology, 1892.
Anna Lewis Moore,
A.B., Smith College, 1895.
John Arthur Murphy,
A.B., St. Francis Xavier College, 1899.
Arthur C. Neish,
A.B., Queen's University, 1898.
Martha Ornstein,
A.B., Columbia University, 1899.
David Brainerd Oviatt,
M.E., Cornell University, 1887; Mech.E., 1888.
Robert Bowie Owens,
E.E., Colorado University, 1891; M.S., McGill University, 1900.
Sara Jay Phillips,
A.B., Vassar College, 1897.
Paul Monroe Pilcher,
B.S., University of Michigan, 1898.
Louise Place,
A.B., Columbia University, 1896.
Charles J. Pretzfeld,
A.B., Columbia University, 1898.
Howard F. Pretzfeld,
B.S., College of the City of New York, 1898.
Henry Thomas Randall,
A.B., Columbia University, 1898.
Joseph Perry Ratzell,
A.B., Franklin and Marshall College, 1896.
Emma Louisa Reed,
Ph.B., Wesleyan University, 1899.
Sigmund Reich,
A.B., College of the City of New York, 1895.
Harry Rode,
B.S., Blackburn University, 1898.
Louis Rouillion,
B.S., Cornell University, 1891.
Herbert Francis Roy,
A.B., Williams College, 1897.
Montgomery Schuyler, Jr.,
A.B., Columbia University, 1899.

Charles Hatch Sears,
A.B., Colgate University, 1898.
Rudolph Albert Seligmann,
A.B., College of the City of New York, 1899.
John Walter Stephens,
A.B., Trinity University, Texas, 1893.
Alfred Stoeckius,
Gymnasium Sondershausen, Germany, 1891 ; Lutheran Theological Seminary, 1896 ; University of Pennsylvania, 1896.
Charles Augustus Strauss,
A.B., College of the City of New York, 1899.
Edith Parker Striker,
A.B., Columbia University, 1899.
Alexander Louis Strouse,
A.B., College of the City of New York, 1899.
Sidney Lionel Teven,
A.B., College of the City of New York, 1898.
Holland Thompson,
Ph.B., University of North Carolina, 1895.
Edwin Kellogg Trowbridge,
A.B., Williams College, 1898.
Joseph Nathan Ulman,
A.B., Johns Hopkins University, 1898.
Ruth Annette Warren,
A.B., Smith College, 1895.
Ada Watterson,
A.B., Columbia University, 1898.
Richard Weil,
A.B., Columbia University, 1896.
John Edwin Wells,
B.L., Swarthmore College, 1896; M.L., 1899.
Herbert Lemuel Wilbur,
A.B., Amherst College, 1892.
Zaidee Williams,
A.B., Columbia University, 1892.
Alpheus Winter,
A.B., Centre College of Kentucky, 1899.
Amelia Wohlfarth,
A.B., Columbia University, 1899.
Samuel Copp Worthen,
A.B., Columbia University, 1898.
Franklin Zeiger,
A.B., Columbia University, 1898.

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Doctor of Philosophy

George Neander Bauer,
B.S., University of Minnesota, 1894 ; M.S., University of Iowa, 1898.
Dissertation : The Parallax of μ Cassiopeia and the Positions of 56 Neighboring Stars as Deduced from the Rutherfurd Photographic Measures.

Julius August Bewer,
Royal Gymnasium, Düsseldorf, Testimonium Maturitatis, 1895.
Dissertation : History of the New Testament Canon in the Syriac Church.

William Maxwell Burke,
A.B., Oberlin College, 1896 ; A.M., 1897.
Dissertation : History and Functions of Central Labor Unions.

William Isaac Chamberlain,
A.B., Rutgers College, 1882 ; A.M., 1886.
Dissertation : Education in India.

Victor Seldon Clark,
B.L., University of Minnesota, 1890.
Dissertation : Studies in the Latin of the Middle Ages and the Renaissance.

George Tobias Flom,
B.L., University of Wisconsin, 1893; A.M., Vanderbilt University, 1894.
Dissertation: Scandinavian Influence on Southern Lowland Scotch, a contribution to the study of the linguistic relations of English and Scandinavian.

Caroline Ellen Furness,
A.B., Vassar College, 1891.
Dissertation: Catalogue of Stars within One Degree of the North Pole, and Optical Distortion of the Helsingfors Astrophotographic Telescope, Deduced from Photographic Measures.

William Henry Glasson,
Ph.B., Cornell, 1896.
Dissertation: History of Military Pension Legislation in the U. S.

August Henry Gotthelf,
B.S., Columbia University, 1897; A.M., 1898.
Dissertation: The Action of Nitrils on Organic Acids.

Louis Herbert Gray,
A.B., Princeton University, 1896; A.M., Columbia University, 1898.
Dissertation: Indo-Iranian Phonology; with Special Reference to the Middle and New Indo-Iranian Languages.

Ferris Greenslet,
A.B., Wesleyan University, 1897; A.M., 1898.
Dissertation: Joseph Glanvill.

David Griffiths,
B.S., Agricultural College of South Dakota, 1892; M.S., 1893.
Dissertation: The North American Lordariaceæ.

Tracy Elliot Hazen,
A.B., University of Vermont, 1897; A.M., Columbia University, 1899.
Dissertation: The Ulothricaceæ and Chætophoraceæ of the United States.

Charles Judson Herrick,
B.S., University of Cincinnati, 1891; M.S., Denison University, 1895.
Dissertation: The Cranial and First Spinal Nerves of Menidia; a Contribution upon the Nerve Components of the Bony Fishes.

Aladine Cummings Longden,
A.B., De Pauw University, 1881; A.M., 1884.
Dissertation: Electrical Resistance of Thin Films Deposited by Kathode Discharge.

Hermann Andreas Loos,
B.S., College of the City of New York, 1895; A.M., Columbia University, 1898.
Dissertation: A Study on the Constitution of Colophony Resin.

Charles Edward Merriam,
A.B., Iowa State University, 1895.
Dissertation: The Theory of Sovereignty since Rousseau.

Samuel Paul Molenaer,
Testimonium Maturitatis, Gymnasium at Rival, 1889.
Dissertation: Egideo Colonna, Du Gouvernement des Rois.

Frederick Clark Paulmier,
B.S., Princeton University, 1894; M.S., 1896.
Dissertation: The Spermatogenesis of Anasa Tristis.

Rudolph Rex Reeder,
Graduate of Illinois State Normal University, 1883.
Dissertation: The Historical Development of School Readers and Method in Teaching Reading.

Frank Clarence Spencer,
B.S., University of Colorado, 1894.
Dissertation: The Education of the Pueblo Child; a Study of Arrested Development.

HONORARY DEGREES

Master of Arts

Morris Ketchum Jesup
Henry William Maxwell
Charles Alfred Post

Doctor of Laws

His Excellency the Rt. Hon. Lord Pauncefote, of Preston, G.C.B., G.C.M.G.
Ambassador E. and P. of Her Britannic Majesty

The Honorable Thomas Brackett Reed

Arthur Twining Hadley, Ph.D.
President of Yale University

Alfred T. Mahan, D.C.L.
Captain of the United States Navy, retired

Abraham Jacobi, M.D.
Professor of the Diseases of Children in the College of Physicians and Surgeons

Minton Warren, Ph.D.
Professor of Latin in Harvard University

Fellows and Scholars

University Fellows

Hartley Burr Alexander, Philadelphia, Pa. .... *Philosophy*
University of Nebraska, A.B., 1897; University of Pennsylvania, graduate student and Harrison Fellow, 1898–1900

Allen Perley Ball, Passaic, N. J. .... *Latin*
Amherst College, A.B., *magna cum laude*, 1892, and A.M., 1895; Student at the Collège de France, 1898–1899; Columbia University, Scholar in Latin, 1899–1900

Robert Henry Bradford, Salt Lake City, Utah .... *Metallurgy*
University of Utah, B.S., 1895, and Assistant Professor of Metallurgy and Mineralogy, 1898–1900

William Austin Cannon, Palo Alto, Cal. .... *Botany*
Stanford University, A.B., 1899; A.M., 1900

Israel Davidson, New York .... *Semitic*
College of the City of New York, A.B., 1895; Columbia University, Scholar in Semitic, 1895–1896, and graduate student, 1898–1900

Robert Heywood Fernald, Cleveland, O. .... *Mechanical Engineering*
University of Maine, B.M.E., 1892; Case School of Applied Science, Cleveland, O., M.E., 1898, and Assistant Professor in Mechanical Engineering, 1896–1900

George Irving Finlay, New York .... *Geology*
Harvard University, A.B., 1898; Columbia University, Scholar in Geology, 1899–1900

James Wilford Garner, Peoria, Ill. .... *Political Science*
Mississippi Agricultural and Mechanical College, B.S., 1892; University of Chicago, graduate student, 1896–1898, and 1899; Instructor in Bradley Polytechnic Institute, Peoria, Ill., 1899–1900

William Harry Heck, Raleigh, N. C. .... *English*
Wake Forest College, A.B., 1897, and A.M., 1899; Columbia University, graduate student, 1899–1900

Alvin Saunders Johnson, Dakota City, Neb. .... *Economics*
University of Nebraska, A.B., 1897, and A.M., 1898; Columbia University, graduate student, 1898–1900, and Scholar in Political Economy, 1899–1900

Thomas Jesse Jones, Greenfield, O. .... *Sociology*
Marietta College, A.B., 1897; Student at Union Theological Seminary, 1897–1900; Columbia University, A.M., 1899, and graduate student, 1899–1900

AUSTIN FLINT ROGERS, Lawrence, Kan. .... *Mineralogy*
Kansas State University, A.B., 1899, and graduate student and Assistant in Mineralogy, 1899–1900

ULRICH BONNELL PHILLIPS, Athens, Ga .... *History*
University of Georgia, A.B., 1897; A.M., 1898, and tutor in History, 1899–1900

MONTGOMERY SCHUYLER, Jr., New York .... *Indo-Iranian*
Columbia University, A.B., 1899; A.M., 1900; Scholar in Indo-Iranian, 1899–1900

CHARLES WORTHEN SPENCER, Hamilton, N. Y .... *American History*
Colby University, A.B., 1890; Chicago University, Fellow in Political Science, 1892–1894; Columbia University, graduate student, 1894–1895; Colgate University, Professor of History, 1895–1900

EARL EVELYN SPERRY, Syracuse, N. Y .... *European History*
Syracuse University, Ph.B., 1898, and Ph.M., 1899; Columbia University, Scholar in History, 1899–1900

HARRY BEAL TORREY, Berkeley, Cal .... *Zoölogy*
University of California, B.S., 1895, and M.S., 1898; Columbia University, Scholar in Zoölogy, 1899–1900

ALBERT CONCER WHITAKER, New York .... *Economics*
Stanford University, A.B., 1899; Columbia University, Scholar in Economics, 1899–1900

CLARK WISSLER, Columbus, O .... *Psychology*
Indiana University, A.B., 1897, and A.M., 1899; Instructor in Psychology at Ohio State University, 1897–1899; Assistant in Psychology, Columbia University, 1899–1900

Honorary Fellows

WILLIAM MAITLAND ABELL, New York .... *Political Science*
Yale University, A.B., 1887, and A.M., 1898; New York University, LL.M., 1894; Columbia University, graduate student, 1898–1899, and Fellow in Political Science, 1899–1900

CARL GUNDERSEN .... *Mathematics*
A.B., Stanford University, 1897; A.M., Columbia University, 1899; University Scholar in Mathematics, 1898–1899; Fellow, 1899–1900

JOSEPH WARREN MILLER, Jr .... *Mechanics*
Pennsylvania State College, B.S., 1897; A.M., Columbia University, 1899; University Fellow in Mechanics, 1898–1900

JESSE ELIPHALET POPE, Minneapolis, Minn .... *Economics*
University of Minnesota, B.S., 1895, and M.S., 1897; Columbia University, graduate student, 1897–1898, and Fellow in Economics, 1898–1900

FRANKLIN ZEIGER, New York .... *Philosophy*
Columbia University, A.B., 1898; A.M., 1900; graduate student, 1898–1899, and University Fellow in Philosophy, 1899–1900

Barnard Fellow

JOHN ALEXANDER MATTHEWS, Ph.D.

Henry Drisler Fellow

BERT HODGE HILL, A.M.

John Tyndall Fellow

ROBERT BOWIE OWENS, A.M.

Mosenthal Fellow

ANGELA DILLER

Schiff Fellow

WALTER PERCY BORDWELL, B.L.

McKim Fellows

FREDERICK LIVINGSTONE PELL, Ph.B.
WILLIAM EDWARD PARSONS, Ph.B.

Columbia Fellow in Architecture

THEODORE BLONDEL, Jr., B.S.

Proudfit Fellow in Letters

JOHN ERSKINE, A.B.

Class of 1870 Fellow

LEWIS BUFFET CARLL, A.M.

Alumni Association Fellows

(College of Physicians and Surgeons)
AUGUSTUS B. WADSWORTH, M.D., *Pathology*
HENRY E. HALE, M.D., *Anatomy*
CHARLES NORRIS, M.D., *Pathology*

Annual Fellow in Comparative Literature

FRANK ANDREWS FALL, A.B.

Annual Fellow in Greek

AGNES BALDWIN, A.M.

Annual Fellow in Sociology

JAMES BRONSON REYNOLDS, A.B.

President's University Scholars

RALPH POTTER BLISS..*Mathematics*
Colgate University, Ph.B., 1899.

FREDERICK HARVEY BLODGETT....................................*Botany*
Rutgers College, B.S., 1897, and M.S., 1899.

JOHN SMITH HARRISON..........................*Comparative Literature*
Columbia University, A.B., 1899; A.M., 1900.

ANDREW LIGHT HORST...*Sociology*
Harvard University, A.B., *cum laude*, 1900.

WILLIAM JONES..*Anthropology*
Harvard University, A.B., 1900.

HOLLAND THOMPSON.................................*Political Economy*
University of North Carolina, Ph.B., 1895; Columbia University, Fellow in Political Economy, 1899–1900.

University Scholars

KARL KURT BOSSE .... *Psychology*
Cornell University, B.S., 1897; Columbia University, graduate student, 1898–1900; Scholar in Psychology, 1899–1900.

WILLIAM KENNETH BOYD .... *American History*
Trinity College (N. C.), A.B., 1897; A.M., 1898.

ALBERT BRITT .... *Political Economy*
Knox College, A.B., 1898; Columbia University, graduate student, 1899–1900.

WALTER ERNEST CLARK .... *Political Economy*
Ohio Wesleyan University, A.B., 1896; A.M., 1898; Columbia University, graduate student, 1899–1900.

SAMUEL BENJAMIN CRANDALL .... *Public Law*
Alfred University, B.S., 1897.

SIDNEY HARRY DIXON .... *Latin*
Columbia University, A.B., 1900.

JAMES JOSEPH FINNIGAN .... *Romance Languages*
Columbia University, A.B., 1900.

GUY STANTON FORD .... *European History*
University of Wisconsin, B.L., 1895, and graduate student, 1898–1899; University of Berlin, 1899–1900.

WALTER BABER GRAHAM .... *Constitutional Law*
University of Kansas, A.B., 1899; Columbia University, A.M, 1900.

CLAYTON MEEKER HAMILTON .... *English*
Brooklyn Polytechnic Institute, A.B., 1900.

ROLAND MCMILLAN HARPER .... *Botany*
University of Georgia, B.E., 1897.

YETARO KINOSITA .... *Economics*
Hiram College, A.B., 1899.

ROBERT CECIL MCMAHON .... *Greek*
Wesleyan University, A.B., 1900.

ROYAL MEEKER .... *Political Economy*
Iowa State College, B.S., 1898; Columbia University, graduate student, 1899–1900.

HERBERT RAYMOND MOODY .... *Chemistry*
Massachusetts Institute of Technology, B.S., 1892; Columbia University, A.M., 1900.

CARL MADISON MOORE .... *Mathematics*
William Jewell College (Liberty, Mo.), A.B., 1898; University of Missouri, A.M., 1900.

ROBERT INSALL RAIMAN .... *English*
Columbia University, A.B., 1900.

Harold Eugene Robertson .... *Philosophy*
Carleton College, A.B., 1899.

Edgar Walter Roovers .... *German*
Harvard University, A.B., *cum laude*, 1899.

Harry Hull St. Clair, Jr. .... *Linguistics*
Columbia University, A.B., 1900.

George Gilmore Scott .... *Zoölogy*
Williams College, A.B., 1898, and A.M., 1899.

Lewis Edgar Piaget Shanks .... *Romance Languages*
Cornell University, Ph.B., 1899.

Clarence Dimick Stevens .... *Comparative Literature*
Wabash College, Ph.B., 1894.

Ulysses Grant Warren .... *Philosophy*
Syracuse University, Ph.B., 1896.

John Edwin Wells .... *English*
Swarthmore College, B.L., 1896; Columbia University, A.M., 1900; Scholar in English, 1899–1900.

Elmer Humphrey Willmarth .... *Education*
Wooster Polytechnic Institute, B.S., 1897.

Alpheus Winter, Jr. .... *American History*
Center College (Ky.), A.B., 1899; Columbia University, A.M., 1900.

Edwin Campbell Woolley .... *Constitutional Law*
University of Chicago, A.B., 1898; Columbia University, graduate student, 1899–1900.

Lewis A. Youtz .... *Chemistry*
Simpson College (Iowa), Ph.B., 1890, and Ph.M., 1893.

Curtis Scholars

Mary Josephine Emerson .... *Education*
Wellesley College, B.S., 1892.

Elsie Kupfer .... *Botany*
Columbia University (Barnard College), A.B., 1899.

Virginia Newcomb .... *Romance Languages*
Columbia University (Barnard College), A.B., 1900.

Leila Clement Spaulding .... *Greek*
Vassar College, A.B., 1899.

O'Dwyer Scholar

Joseph O'Dwyer

Alonzo Clark Scholar

Augustus Jerome Lartigau, M.D.

John D. Jones Scholar

Frederick Clark Paulmier, Ph.D.

BARNARD COLLEGE

Hartley House Fellow

Elsie Clews Parsons (Mrs. Herbert Parsons), A.B., A.M., Ph.D.

Fiske Graduate Scholar

Ellen Scott Davison, B.Sc., A.M.

Ella Weed Scholar

Mary Lavinia Eaton

Brooklyn Scholars

Mary Frederica Harrison
Florence Eddy Hubbard
May Amerman Johnson
Ada Blanche Clouse Neiswender
Dora Russell Nevins
Grace Malvina Peters
Jeannette Rowland Seibert
Madeleine Dayrell Skinner
Helen Maria Wright

Other Students on Brooklyn Scholarships

Mary Olive Barrick
Ida Ethel Lewis
Janetta Gordon Studdiford

Trustees Competitive Entrance Scholar

Dora Russell Nevins

Veltin School Scholar

Clare Maclellen Howard

Mrs. Donald McLean Scholar

Lucy Fidelia Sherman

Jennie B. Clarkson Scholar

Margaret Elizabeth Clark

Luclle Pulitzer Scholar

Helen Louise King

Emily James Smith Scholar

Katharine Ellen Poole

Anna E. Barnard Scholar

Florence Palmer Cheesman

Brearley Scholar

May Godfrey Wendell

TEACHERS COLLEGE

Fellows

FRANK PUTERBAUGH BACHMAN..................*Education and Psychology*
University of Chicago, A.B., 1896; University of Marburg, 1896–1897.
RUFUS CLARENCE BENTLEY......................*Education and Psychology*
University of Nebraska, A.B., 1894; A.M., 1896.
EDWIN CORNELIUS BROOME.......................*Education and English*
Brown University, Ph.B., 1897; A.M., 1898.
JOHN WILLIAM HALL...........................*Education and Geography*
State Normal School, Illinois, 1890; University of Jena, 1892–1895.

Manual Training Fellow

OSCAR LINCOLN McMURRY,
Illinois State Normal University, 1879; University of Michigan, 1881–1882; Cornell University, 1885–1886.

Scholars

MARY ESTHER BEATTY....................*Education and Domestic Science*
Newton Normal College, 1890–1893; Iowa State College, B.L., 1898.
ESMOND B. BEARDSLEE............................*Education and History*
Colgate University, A.B., 1897.
RUSSELL H. BELLOWS...*Education*
Union College, 1889–1891; State Normal College, Albany, N. Y., 1893.
MARION RAYMOND BROWN.........................*Education and Botany*
Wells College, A.B., 1898.
JANE BRODIE CARPENTER.........................*Education and English*
Mt. Holyoke College, B.L., 1897; A.B., 1898.
ERNEST BECKWITH KENT.............*Education, Psychology, and Sociology*
Iowa College, A.B., 1894.
HARRY MARTIN SHAFER......................*Education and Psychology*
Harvard University, A.B., 1899; A.M., 1900.
WILLIAM WALTER SMITH......................*Education and Psychology*
Princeton University, A.B., 1889; A.M., 1892; Columbia University, M.D., 1895.
LOUIS FRANKLIN SNOW...........................*Education and English*
Brown University, Ph.B., 1887; Harvard University, A.B., 1889; A.M., 1890.

Hoadley Scholars

ELEANOR M. PHILLIPS,
Illinois State Normal University, 1896.
MAUD VALENTINE,
Illinois State Normal University, 1890.

Low Scholars

JANE WHEELER BRUSH,
ALICE BELDEN COLES,
Vassar College, A.B., 1899.
MARY CHEVES WEST,
MAUD L. BROWN CURTISS.

Charlotte Louisa Williams Scholars

SUSANNE REBECCA MILLER,
University of Minnesota, 1898–1900.
HELEN MARIA TURNER,
State Normal School, Louisiana, 1878.

Earl Scholar

DAVID SAMUEL SNEDDEN...............*Education, Psychology, and Sociology*
Leland Stanford, Jr., University, A.B., 1897.

Pierrepont Scholar

ANNE TOWNSEND BRIDGMAN

Pond Scholar

ANNE BUSH MACLEAR

Shackelford Scholar

SOPHIE YUDELSON

Tileston Scholar

ADA MARIA SKINNER

Awards of Prizes and Honors, 1900

COLUMBIA COLLEGE

Honors

Highest General Honors

James Floyd Bowman	Class of 1900
James Joseph Finnigan	" " 1900
Charles Jones Ogden *Brooklyn Scholar*	" " 1900
Arthur Youle Meeker *Clark Scholar*	" " 1900
Harwood Hoadley	" " 1900
Philip Coan	" " 1900
Harry Hull St. Clair, Jr *Alumni Competitive Scholar*	" " 1900
Hans Olaf Hanson	" " 1901
Charles Savage Forbes *Parish Scholar*	" " 1901
John Pierce Langs	" " 1902

General Honors

Simeon Strunsky	Class of 1900
Sidney Harry Dixon *Vanderbilt Scholar*	" " 1900
Michael Marks Davis, Jr	" " 1900
Robert Insall Raiman	" " 1900
John Muirheid *Vanderbilt Scholar*	" " 1900
George Payn Quackenbos	" " 1900
Charles William Stoddart	" " 1900
William Irving Clark, Jr	" " 1900
Fred Russell McMurry *Faculty Scholar*	" " 1900
Robert Chipman Hull *Brooklyn Scholar*	" " 1900
Leo David Newborg	" " 1900
Rudolph Isaac Coffee *Schiff Scholar*	" " 1900
Melville Jefferson France *Morgan Scholar*	" " 1900

David Henry Pollard	Class of 1900
Sloan Scholar	
Wallis Smyth Turner	“ “ 1900
Thomas Edward O'Brien	“ “ 1900
John Wesley Gould	“ “ 1900
Henry Sydnor Harrison	“ “ 1900
Brooklyn Scholar	
Samuel Erasmus Moffett	“ “ 1900
Alfred Einstein Cohn	“ “ 1900
Joseph Diehl Fackenthal	“ “ 1900
Albert Joseph Mehler	“ “ 1900
David Owen Dunbar	“ “ 1900
Henry Starr Giddings	“ “ 1900
Frank Kidde	“ “ 1900
Philip Parkhurst Gardiner	“ “ 1900
Abraham Elijah Neugroschl	“ “ 1900
Edwin Joseph Walter	“ “ 1900
Frederick Dan Huntington Coerr	“ “ 1900
Harold Anderson Kellock	“ “ 1900
Thomas Shirley Whittaker	“ “ 1900
Lee Mansfield Bingham	“ “ 1900
Oscar Lowenstein	“ “ 1900
Giffard Arthur Nelson	“ “ 1900
Harris Harold Gumm	“ “ 1901
Michael Hart Cardozo, Jr.	“ “ 1901
William Francis Beers, Jr.	“ “ 1901
Egbert Ward	“ “ 1901
Edward Bedinger Mitchell	“ “ 1901
Edward Wood Baker	“ “ 1901
David Armstrong	“ “ 1901
William Paul Buchler	“ “ 1901
Frederick William Justus Heuser	“ “ 1901
A. A. Low Scholar	
Allison Michael Lederer	“ “ 1901
Herbert Fedor Small	“ “ 1901
Achilles Hermann Kohn	“ “ 1901
James Gray	“ “ 1901
Vanderbilt Scholar	
Elliot Williams Boone	“ “ 1901
John Boyce Smith, Jr.	“ “ 1901
Albert Forsch	“ “ 1901
Walter James Heimann	“ “ 1901
Victor Fitch Mount Bonsall	“ “ 1901
Marshall Lawrence Havey	“ “ 1901
Henry Roderick Grant	“ “ 1901
Eugene Tavenner	“ “ 1901
Kenneth Benbow Elliman	“ “ 1901
William Henry Boese	“ “ 1901

Julian Collier Harrison .... Class of 1901
Robert Bruce Pegram .... “ “ 1901

Cutting Scholar

Walter Joseph Mosenthal .... “ “ 1901
George Laurence Donnellan .... “ “ 1901
Frank Houghton Sewall .... “ “ 1902
William Marsiglia Nesbit .... “ “ 1902
Archibald Spiers Winslow .... “ “ 1902
Charles Christian Lieb .... “ “ 1902
George Henry Danton .... “ “ 1902
Horace Richmond Sturtevant .... “ “ 1902

Vanderbilt Scholar

Theodore Raymond St. John .... “ “ 1902
George Christian Otto Haas .... “ “ 1902

Morgan Scholar

James Harold Heroy .... “ “ 1902
Gilbert Oakley Ward .... “ “ 1902
Julius Victor Haberman .... “ “ 1902
Edward Schuster .... “ “ 1902

Vanderbilt Scholar

Walter Nathan Seligsberg .... “ “ 1902
Henry Kirkland Smith .... “ “ 1902
James Bassett, Jr. .... “ “ 1902

Clark Scholar

Harry Gabriel Cowen .... “ “ 1902
Walter Lester Glenney .... “ “ 1902

Alumni Competitive Scholar

Floyd Rider Wooster .... “ “ 1902
Alfred Stratton Lawrence .... “ “ 1902
Dino Bigongiari .... “ “ 1903
Louis S. Odell .... “ “ 1903
Lawrason Riggs, Jr. .... “ “ 1903
Alexander Otto Bechert .... “ “ 1903

Hewitt Scholar

Stanley Myer Isaacs .... “ “ 1903
Edmond Jordan Harrison .... “ “ 1903
George Frederick Bambach .... “ “ 1903
Robert Schulman .... “ “ 1903
Clinton Gilbert Abbott .... “ “ 1903

Alumni Competitive Scholar

David Asch .... “ “ 1903
William Forrest Hills .... “ “ 1903

Alumni Association Scholar

Herbert Spencer Loveman .... “ “ 1903
Harold Chaffee McCollom .... “ “ 1903

Brooklyn Scholar

Harold Shields .... “ “ 1903
Alfred Hoffman .... “ “ 1903
Nathaniel Waring Barnes .... “ “ 1903

William Fyfe Turnbull................................Class of 1903
{ Richard Compton Harrison............................ " " 1903
{ Charles Howard Loper................................ " " 1903

Alumni Association Scholar

DEPARTMENTAL HONORS

Final Honors

Germanic Languages

Edwin Joseph Walter

Philosophy

Rudolph Isaac Coffee
Robert Chipman Hull
Leo David Newborg
Charles Jones Ogden

Romance Languages

James Joseph Finnigan

Junior Honors

English

Harold Allison Mattice

Literature

Elliott Williams Boone

Mathematics

Achilles Hermann Kohn

Sophomore Honors

Germanic Languages

Alexander Otto Bechert
Edward Schuster
Frank Houghton Sewall

Chanler Historical Prize

Simeon Strunsky

COMPETITIVE SCHOLARSHIPS, CLASS OF 1904

Alumni Competitive Scholar

Oscar Rempel Houston

Harper Scholar

John Cuthbert Sweeny

Brooklyn Scholars

Paul Gerhard Gravenhorst
Edward Isenberger
Marmell Francis Lawton

COLLEGE OF PHYSICIANS AND SURGEONS

Harsen Prizes for Proficiency at Examination

First Prize: Otto Hensel, Ph.G.
Second Prize: Harry Gaylord Dorman, A.B.
Third Prize: Arthur Walker Bingham, A.B.

Examination Honors

Edwin Lorendus Bebee, A.B.
Major Gabriel Seelig, A.B.
Theodore Jacob Abbott, A.B.
Adam Wendell Hubschmitt, A.B.
Eli Moschowitz, A.B.
Karl Max Vogel, Ph.G.
Paul Ernest William Menk, Ph.G.

Alumni Association Prize

David Bovaird, Jr., A.B., M.D.

Joseph Mather Smith Prize

No award

SCHOOL OF POLITICAL SCIENCE

Bennett Prize

No award

Prize Lectureships

Milo Roy Maltbie
William Zebina Ripley
George James Bayles

Toppan Prize

Walter Wheeler Cook

Seligman Prize

Alvin Saunders Johnson

UNIVERSITY

H. C. Bunner Medal

No award

DIRECTORY OF OFFICERS

The numeral in parentheses after each name refers to the page on which names and titles are given in full.

B. = Barnard College.
C. = Columbia College.
E. = Engineering.
F. = Fayerweather.
H. = Havemeyer.
L. = Library.
P. & S. = College of Physicians and Surgeons.
S. = Schermerhorn.
So. = South Hall.
T. = Teachers College.
U. = University.
V. C. = Vanderbilt Clinic.
W. = West.

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Abbe, R. Clin. Lect. (4)		P. & S.	13 W. 50
Abbott, H. V. Instr.		T.	28 E. 28
Aldrich, J. Clin. Asst. (9)		V. C.	106 W. 81
Andrews, Grace, Asst. (8)		B. 408	
Anthony, Kate S. Instr.		T.	2337 Broadway
Armstrong, W. Clin. Asst. (9)		V. C.	63 E. 55
Atwood, C. E. Clin. Asst. (9)		V. C.	10 W. 16
Ayer, J. C. Clin. Asst. (9)		V. C.	31 W. 36
Aylmer-Small, C. S. Asst. (7)	M.-F. 2.30-5.30	501 E.	52 Franklin ave., Passaic, N. J.
Bagster-Collins, E. W. Instr.		T.	2016 7th ave.
Bailey, F. R. Tutor (6)		P. & S.	1165 E. Jersey st., Elizabeth, N. J.
Bailey, P. Clin. Asst. (9)		V. C.	4 W. 50
Baker, C. M. Instr.		T.	417 W. 114
Baker, F. T. Prof. (2)	M. W. F. 9.15 M. 2.30	T. 323	602 S. Bway., Caryl ave., Yonkers, N. Y.
Baker, G. H. Lib. Emer. (10)			294 Manhattan ave.
Baldwin, Elizabeth G. Lib. Teachers College	M.-F. 9.15-5 S. 9.15-1	T.	469 Main st., E. Orange, N. J.
Ball, A. B. Prof. (4)		P. & S.	42 W. 36
Banker, C. E. Asst. (8)		P. & S.	
Bargy, H. Lect. (8)	M. W. 10.30	311 W.	106 W. 105
Barnum, Edith, Asst.		T.	128 Manhattan ave.
Barstow, D. M. Clin. Asst. (9)		V. C.	6 E. 9
Batchelder, Evelyn, Asst.		T.	

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Batchelder, Mildred I. Asst.		T.	417 W. 118
Bayles, G. J. Prize Lect. (8)	T. F. 4.30	405 L.	287 4th ave.
Beebe, W. H. H. Sec. (xi)	M. W. F. 9–5	213 L.	425 W. 117
Beeman, L. M. Sec. Teachers College (xi)	M.–F. 9–5 S. 9–12.30	T. 102	215 W. 100
Benns, C. P. Instr. (5)		T. 125	18 Landscape ave. (Lowerre), Yonkers, N. Y.
Bentley, W. A. Instr. (5)	Daily 10.30–11.30	104 H.	564 W. 149
Béziat de Bordes, A. Lect. (9)	W. 11.30	306 W.	106 W. 105
Bickham, W. S. Asst. Instr. (5)		P. & S.	992 Madison ave.
Bigelow, M. A. Instr.		T.	594 W. 152
Biggs, G. P. Dem. (6)		P & S.	39 E. 63
Biklé, C. E. Adj. Prof. (2)	T. Th. 2.30–4	T. 324	128 W. 103
Bill, E. W. Clin. Asst. (9)		V. C.	24 W. 25
Black, A. Tutor (6)	Daily 10.30–12.30 2.30–4.30	507 E.	
Blake, Anne S. Instr.		T.	417 W. 118
Blake, J. A. Instr. (5)		P. & S.	601 Madison ave.
Boag, E. T. Asst. Registrar		P. & S.	3 Lenox ave., White Plains, N. Y.
Boas, F. Prof. (3)	W. 11.30 Th. 10.30	405 S.	123 W. 82
Bogert, M. T. Instr. (5)	T.–F. 2.30–4.30	408 H.	430 W. 154
Bonar, A. B. Clin. Asst. (9)		V. C.	157 W. 47
Bradley, W. L. Clin. Asst. (9)		V. C.	119 W. 75
Braun, W. A. Asst. (7)	M. W. F. 10–10.30	B. 317	518 Manhattan ave.
Braunlich, A. R. Clin. Asst. (9)		V. C.	68 W. 96
Brewer, G. E. Instr. (5)		P. & S.	68 W. 46
Brewster, W. T. Instr. (5)	T. Th. 9.30–10.30	507 F.	112 W. 81
Brinckerhoff, Emily V. Instr.		T.	10 W. 4th st., Mt. Vernon, N. Y.
Britton, N. L. Emer. Prof. (10)		N. Y. Botanical Garden	
Brockway, F. J. Asst. Dem. (6)		P. & S.	254 W. 84
Brooks, F. E. Instr.		T.	465 W. 139
Brouner, W. B. Clin. Asst. (9)		V. C.	256 W. 12
Brugman, A. F. Clin. Asst.(9)		V. C.	1845 7th ave.
Brush, Mary C. Registrar, Teachers College		T.	410 W. 115
Buck, A. H. Clin. Prof. (4)		P. & S.	48 W. 40
Budington, R. A. Asst. Dem. (6)		P. &. S.	1270 Amsterdam ave.
Bull, W. T. Prof. (1)		P. & S.	35 W. 35
Burchell, H. J., Jr. Tutor (6)		B.	669 Lexington ave.

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Burdick, F. M. Prof. (2)	T.–F. 12.30–1	303 L.	115th st., near Riverside drive
Burgess, J. W. Prof. and Dean Sch. of Pol. Sci. (1)	M. T. W. Th. 3.30–4.30	404 L.	323 W. 57
Burr, W. H. Prof. (2)	M.–F. 2.30–4.30	401 E.	151 W. 74
Butler, Eliza R. Instr.		T.	175 Hamilton ave., Paterson, N. J.
Butler, N. M. Prof. and Dean Sch. of Philos. (1)	M.–Th. 2	420 L.	119 E. 30
Cabot, Caroline A. Exam. Phys.		T.	2643 Broadway
Cabot, J. Clin. Asst. (9)		V. C.	126 W. 48
Calhoun, Mary E. Asst.		T.	419 W. 118
Calkins, G. N. Instr. (5)	T. F. 10–12.30	604 S.	1 W. 81
Campbell, A. Clin. Asst. (9)		V. C.	Manhattan State Hosp'l, Ward's Island
Canfield, G. F. Prof. (2)	M. T. 4.30–5.30	302 L.	32 E. 33
Canfield, J. H. Librarian (xi)	M.–F. 10–12.30	L.	501 W. 113
Carleton, P. G. Tutor (6)	T. Th. 10.30–11.30	507 F.	112 W. 81
Carmalt, C. C. Asst. Dem. (6)		P. & S.	40 E. 58
Carpenter, G. R. Prof. (2)	T. Th. 9.30–10.30; S. 11.30	508 F.	501 W. 113
Carpenter, W. H. Prof. (1)	M. W. 3.30 T. Th. 2.30	316 W.	253 W. 100
Carr, M. L. Clin. Asst. (9)		V. C.	353 W. 57
Carss, Elizabeth, Instr.		T.	537 W. 141
Caspari, C. E. Asst. (8)	Daily 10–11	401 H.	312 W. 115
Castle, E. H. Prof. (2)	M. 3.30–4 W. 9.30–10	T. 320	359 W. 121
Caswell, W. H. Instr. (5)		P. & S.	201 W. 55
Cathcart, W. L. Adj. Prof. (3)	M. T. Th. F. 11.30–12.30	604 E.	
Cattell, J. McK. Prof. (2)	T. Th. 2.30–4.30	413 S.	Garrison, N. Y.
Chambers, Mrs. Mary D. Instr.		T.	175 W. 107
Chambliss, H. Asst. (8)		P. & S.	312 W. 115
Chandler, C. F. Prof. (1)	M. W. F. 1.30	303 H.	51 E. 54
Chase, L. N. Asst. (7)	W. 10	511 F.	520 W. 123
Chittenden, R. H. Dir. and Lect. (8)		P. & S.	New Haven, Conn.
Churchill, A. V. Prof. (3)	M. W. Th. F. 12.15	T. 432	2730 Broadway
Claiborne, J. H. Instr. (4)		P. & S.	39 W. 36
Clark, J. B. Prof. (2)	M.–Th. 2	404 W.	616 W. 113
Clarke, W. C. Asst. (8)			
Coburn, E. B. Clin. Asst. (9)		V. C.	313 W. 57
Cochran, Katherine M. Instr.		T.	419 W. 118
Cohn, A. Prof. (2)	M. W. 3.30.	302 W.	250 W. 94
Cole, F. N. Prof. (2)	M. 11	406 C.	
Coley, W. B. Clin. Lect. (4)		P. & S.	5 Park ave.
Coll, A. P. Clin. Asst. (9)		V. C.	157 Lexington ave.

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Collins, H. D. Asst. Dem. (6)		P. & S.	119 E. 35
Comstock, W. W. Asst. (7)	M. W. F. 9.30	401 F.	3136 Broadway
Cook, F. R. Clin. Asst. (9)		V. C.	5 Park ave.
Cook, W. W. Asst. (7)	M. W. F. 9.30–10.30	408 C.	477 W. 144
Cowen, W. Instr. (4)		P. & S.	35 E. 60
Cragin, E. B. Prof. and Sec. pro tem. (3)		P. & S.	62 W. 50
Crampton, C. W. Asst. (8)		P. & S.	
Crampton, H. E. Instr. (5)	M. W. F. 3–4	B. 403	795 St. Nicholas ave.
Crary, G. W. Asst. Dem. (6)	Absent on leave	P. & S.	22 W. 55
Crocker, F. B. Prof. (2)	M. W. 10.30–12 Th. 11.30–12.30	503 E.	14 W. 45
Cunningham, R. H. Clin. Asst. (9)		V. C.	200 W. 56
Curtis, C. C. Tutor (6)	T. Th. 2.30–4.30	501 S.	
Curtis, E. Emer. Prof. (10)			120 Broadway
Curtis, J. G. Prof. (1)		P. & S.	327 W. 58
Cutter, W. D. Asst. (7)		P. & S.	1208 Pacific st., Bklyn.
Dade, C. T. Clin. Asst. (9)		V. C.	63 E. 56
Daniell, Lucetta, Directress, Teachers College	M.–S. 10–12	T.	8 Morningside ave.
Darrach, Mrs. E. R. Adviser of Grad. Women Students (xi)	T. Th. 2–4 W. F. 10–12	414 W.	305 W. 80
Davis, B. Asst. (8)	M. T. S. 9.30–12.30	210 F.	557 W. 124
Davis, W. H. Asst. (7)	M. W. 11.30–12.30	412 S.	150 W. 122
Day, A. M. Instr. (5)	M. W. 2.30	412 W.	106 W. 105
Day, W. S. Tutor (6)	T. Th. 11.30 and 3.30	B. 212	551 West End ave.
Dean, B. Adj. Prof. (3)	Absent on leave	605 S.	20 W. 82
Delafield, F. Prof. (1)		P. & S.	12 W. 32
Derr, H. M. Asst. (7)	M. T. 2.30–5	303 F.	428 W. 124
Dodge, R. E. Prof. (3)	M. F. 1.30–2.30 W. 9.30–10.30	T. 416	22 St. Andrews pl., Yonkers, N. Y.
Dorman, F. A. Instr. (5)		P. & S.	Sloane Maternity Hospital
Dow, E. L. Clin. Asst. (9)		V. C.	49 W. 57
Dowd, C. N. Instr. (5)		P. & S.	135 W. 73
Draper, W. H. Emer. Prof. (10)			19 E. 47
Draper, W. K. Instr. (4)		P. & S.	116 E. 38
Dryfus, W. E. Asst. (8)			
Dunn, L. B. Tutor (7)	W. 11.30	B. 320	Fiske Hall, Barnard
Dunning, W. A. Prof. (2)	M. W. 11.30–12.30	409 L.	256 W. 57
Dutton, S. T. Prof. and Supt. Teachers College Schools (3)	M.–F. 8.45–10 T. Th. F. 3–5	T. 104	814 West End ave.
Dwight, J., Jr. Clin. Asst. (9)		V. C.	2 E. 34

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Earle, M. L. Prof. (3)	T. Th. 2.30–3.30	B. 209	462 W. 22
Edgerton, J. I. Clin. Asst. (9)		V. C.	36 W. 35
Edie, Edith K. Sec. Horace Mann Sch.		T.	150 W. 122
Egbert, J. C., Jr. Prof. (3)	M. W. F. 11.30–12.30	310 C.	364 Webster ave., Jersey City, N. J.
Eklöf, O. R. Instr.		T.	127 W. 74
Eliot, E., Jr. Clin. Lect. and Dem. (4)		P. & S.	48 W. 36
Ely, L. W. Clin. Asst. (9)		V. C.	33 W. 88
Emmert, F. N. Clin. Asst. (9)		V. C.	
Evans, E. M. Asst. (7)		P. & S.	68 W. 46
Farnsworth, C. H. Instr.		T.	
Farrand, L. Instr. (4)	M. Th. 11.30	405 S.	40 E. 58
Ferris, A. W. Clin. Asst. (9)		V. C.	343 Madison ave.
Fisher, G. F. Bursar (xi)	M.–F. 9–5 S. 9–12	109 L.	124 E. 24
Fiske, T. S. Prof. (2)	M. W. F. 11	401 C.	1690 Broadway
Fitz-Gerald, J. D., II., Asst. (7)	Absent on leave	306 W.	
Flint, C. P. Asst. (6)		P. & S.	
Foote, E. M. Instr. (5)		P. & S.	70 W. 35
Forrest, Mrs. M. L. Instr.		T.	828 St. Nicholas ave.
Fowler, S. W. Clin. Asst. (9)		V. C.	116 W. 103
Fox, G. H. Clin. Prof. (4)		P. & S.	18 E. 31
Francke, P. F. Clin. Asst. (9)		V. C.	28 W. 45
Freeborn, G. C. Instr. (4)		P. & S.	215 W. 70
French, Isabel C. Asst.		T.	Fiske Hall
Frothingham, R. Instr. (5)		P. & S.	60 W. 55
Fuld, J. E. Clin. Asst. (9)		V. C.	169 E. 82
Gallaudet, B. B. Dem. and Instr. (6)		P. & S.	162 W. 83
Germann, G. B. Registrar (xi)	M. W. F. 2–5 T. Th. S. 9–12	109 L.	
Gibney, H. W. Clin. Asst. (9)		V. C.	16 Park ave.
Gibney, V. P. Clin. Prof. (4)		P. & S.	16 Park ave.
Gibson, L. M. Clin. Asst. (9)		V. C.	158 W. 81
Giddings, F. H. Prof. (2)	T. 4.30; F. 2	403 L.	150 W. 79
Gies, W. J. Instr. (5)		P. & S.	142 W. 70
Gildersleeve, Virginia C. Asst. (8)		B. 408	28 W. 48
Gillespy, Jeannette B. Asst. (7)		B. 408	10 W. 64
Gilley, W. C. Clin. Asst. (9)		V. C.	59 Bank st.
Gillmore, Mary B. Asst.		T.	419 W. 118
Goetze, F. A. Supt. of B. & G. (xi)	M.–F. 10–11	110 L.	3025 Broadway
Goodell, G. A. Tutor (7)		P. & S.	284 St. Nicholas ave.
Goodhart, S. P. Clin. Asst. (9)		V. C.	131 E. 64
Goodnow, F. J. Prof. (1)	M. W. 3.30–4.30	408 L.	49 Riverside drive
Gordon, R. Instr. (4)	T. 2–5	303 F.	315 W. 71
Gottheil, R. J. H. Prof. (1)	F. 2.30	401 W.	2074 Fifth ave.
Green, N. W. Asst. Dem. (6)		P. & S.	23 W. 37

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Hale, H. E. Asst. Dem. (6)		P. & S.	515 Madison ave.
Hallock, W. Adj. Prof. (2)	T. Th. 10.30–11.30	409 F.	417 W. 118
Hamlin, A. D. F. Adj. Prof. (1)	T. 10.30–11.30 Th. 11.30–12.30	613 H.	1285 Columbus ave.
Harpham, Flora E. Computor (7)		602 F.	74 W. 124
Harriman, C. A. Instr. (4)		605 H.	843 West End ave.
Hart, S. Clin. Asst. (9)		V. C.	77 W. 50
Hartley, F. Prof. (4)		P. & S.	52 W. 50
Hayden, J. R. Instr. (4)		P. & S.	107 W. 55
Herrick, W. P. Clin. Asst. (9)		V. C.	
Hervey, W. A. Instr. (5)	M. 3.30; W. 10.30; F. 3	314 W.	607 W. 138
Higgins, J. J. Clin. Asst. (9)		V. C.	
Hildreth, Helen, Asst.		T.	530 W. 123
Hill, E. Y. Clin. Asst. (9)		V. C.	111 W. 71
Hill, G. W. Lect. (8)			W. Nyack, N.Y.
Hinrichs, G. Conductor of Music (8)	T. 3.30–4.30	204 So.	145 E. 62
Hiss, P. H., Jr. Instr. (5)		P. & S.	28 N. Washington sq.
Hitchcock, C. K., Jr. Asst. (8)	M.–F. 9.30–5	407 E.	49 North st., Bayonne, N. J.
Hodenpyl, E. Instr. (4)		P. & S.	143 W. 73
Hodgson, J. H. P. Clin. Asst. (9)		V. C.	29 Washington sq.
Hogarty, B. Asst. (7)		206 H.	240 W. 123
Holden, W. A. Clin. Asst. (9)		V. C.	60 W. 39
Hollick, A. Tutor (6)	Daily 10.30–12.30	302 S.	New Brighton, N. Y.
Hooper, F. C. Instr. (5)			
Hornbostel, H. F. Lect. (8)			63 William st.
Hotchkiss, Caroline W. Asst.		T.	268 W. 84
Hotchkiss, L. W. Instr. (5)		P. & S.	24 E. 54
Houston, J. W. Prof. (3)			40 Wall st.
Howe, H. M. Prof. (3)	M. W. 10.30–11.30	103 H.	27 W. 73
Howe, M. A. Curator (8)	M. F. 9.30–12.30	504 S.	Cor. Brookline st. and Decatur ave., Fordham
Howland, A. C. Instr.		T.	235 W. 120
Huber, F. Instr. (5)		P. & S.	209 E. 17
Huber, J. Clin. Asst. (9)		V. C.	113 E. Bway.
Huntington, G. S. Prof. (2)		P. & S.	251 W. 81
Hurd, L. M. Clin. Asst. (9)		V. C.	19 E. 38
Hutton, F. R. Prof. and Dean Faculty of Applied Science (1)	T. Th. 10.30–12.30	308 H.	319 W. 107
Hyslop, J. H. Prof. (3)	M.–F. 2.30	416 L.	519 W. 149
Jackson, A. V. W. Prof. (2)	M. 10.30	405 W.	16 Highland pl., Yonkers, N. Y.
Jackson, F. W. Instr. (5)		P. & S.	12 W. 18
Jackson, G. T. Instr. (5)		P. & S.	14 E. 31

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Jacobi, A. Prof. (3)		P. & S.	110 W. 34
Jacoby, H. Adj. Prof. (2)	M. W. 10.30–12	608 F.	15 W. 53
James, W. B. Instr. (5)		P. & S.	17 W. 54
Jardine, J. Instr.		T.	354 W. 119
Jarman, G. W. Instr. (4)		P. & S.	54 W. 76
Jelliffe, S. E. Clin. Asst. (9)		V. C.	231 W. 71
Jessup, D. S. D. Asst. (7)		P. & S.	356 W. 21
Johnstone, W. B. Asst. (7)	W.–F. 9.30–12.30	210 F.	22 W. 25
Jones, A. L. Asst. (7)	M. W. F. 1.30 T. Th. 2.30	416 L.	249 W. 109
Jordan, D. Tutor (6)	W. 11.30	301 W.	249 W. 109
Jouet, C. H. Lect. (8)	W. Th. S. 1.30–2.30	505 H.	Roselle, N. J.
Julien, A. A. Instr. (4)	M. W. F. 10–11.30	303 S.	71 E. 87
Kasner, E. Tutor (7)	T. Th. 10.30	B. 309	121 E. 114
Keener, W. A. Prof. and Dean Law School (2)	W.–F. 12.30	Law Library	441 Park ave.
Keller, Eleanor, Asst. (8)		B. 420	13 Livingston pl.
Kellogg, G. S. Curator		T.	470 W. 146
Kemp, J. F. Prof. (2)	M. W. F. 10.30–11.30	403 S.	211 W. 139
Kennedy, J. M. Clin. Asst. (9)		V. C.	168 W. 97
Keppel, F. P. Asst. Sec. (xi)	M.–F. 9–5 S. 9–12	213 L.	239 E. 17
Keppler, E. A. C. Asst. (8)	W. 10–11.30 F. 11.30–12.30	408 W.	28 W. 70
Keyser, C. J. Instr. (5)	M. W. F. 11.30	407 C.	24 Manhattan ave.
Kinne, Helen, Prof.	M. 3.30–4.30 W. 2.30–3.30 F. 1.30–2.30	T.	8 Morningside ave.
Kinnicutt, F. P. Prof. (4)		P. & S.	39 E. 35
Kirchwey, Clara B. Instr.		T.	605 W. 113
Kirchwey, G. W. Prof. (2)	M. 9.30–10.30 T. 10.30–11.30 W. 11.30–12.30	414 L.	605 W. 113
Kirchwey, Mary F. Asst.		T.	605 W. 113
Knapp, C. Instr. (5)	M. W. F. 10.30–11.30	B. 409	1773 Sedgwick ave.
Knapp, H. Prof. (4)		P. & S.	26 W. 40
Krapp, G. P. Lect. (and Instr. T.) (8)	M. W. 10.30	508 F.	128 W. 103
Kress, M. K. Curator and Lect. (8)	M.–F. 2.30–5	610 H.	248 W. 42
Krystall, B. E. Clin. Asst. (10)		V. C.	53 E. 86
Lambert, A. V. Asst. Dem. (6)		P. & S.	2 E. 37
Larkin, J. H. Tutor and Curator (6)		P. & S.	498 W. 130
Lartigau, A. J. Tutor (6)		P. & S.	138 W. 56
Lathrop, Anna B. Asst.		T.	
Lathrop, Susan A. Asst.		T.	408 W. 115
Laudy, L. H. Tutor (6)	Daily 9–5	313 H.	15 W. 65

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Lawrence, Mrs. Margaret S. Instr.		T.	250 W. 94
Leaming, E. Instr. (4)		P. & S.	117 W. 84
Lee, F. S. Adj. Prof. (3)		P. & S.	107 W. 74
Lefferts, G. M. Clin. Prof. (3)		P. & S.	212 Madison ave.
Leshure, J. Clin. Asst. (10)		V. C.	187 Convent ave.
Lewis, May H. Asst.		T.	417 W. 119
Lewis, R., Jr. Instr. (4)		P. & S.	48 W. 40
Liggett, Mrs. N. W. Bursar Barnard College (xi)		B.	
Little, T. Chief of Bureau of Purchases and Supplies (xi)	Daily 9–12	106 L.	419 W. 118
Lloyd, F. E. Adj. Prof. (3)	M. T. Th. F. 9.30–10.30	T. 417	370 W. 120
Lockwood, G. R. Instr. (4)		P. & S.	44 W. 49
Lodge, G. Prof. (3)	T. Th. 11.30–12.30	T. 317	84 W. 120
Loiseaux, L. A. Instr. (5)	M. W. F. 3.30 Th. 2.30	304 W.	106 W. 105
Lord, H. G. Prof. (3)	M. W. F. 10.30–11.30	416 L.	618 W. 113
Lovell, E. B. Adj. Prof. (3)			235 W. 102
Low, Seth, President (1)	M. W. F. 2–4	213 L.	
Luquer, L. McI. Instr. (5)	M. Th. 2.30–4.30	306 S.	321 W. 80
McBurney, C. Clin. Prof. (3)		P. & S.	
McCosh, A. J. Clin. Lect. (4)		P. & S.	16 E. 54
McCoy, J. J. Clin. Asst. (10)		V. C.	83 W. 104
McCrea, N. G. Adj. Prof. (3)	W. F. 11.30	309 C.	417 W. 118
McEvoy, J. P. Clin. Asst. (10)		V. C.	10 E. 28
McGinnis, E. L'H. Asst. (7)		P. & S.	329 Amsterdam ave.
McGregor, J. H. Tutor (6)	M. 10–12	610 S.	417 Manhattan ave.
McLane, J. W. Emer. Prof. and Dean School of Medicine (10)		P. & S.	51 W. 38
McMurry, F. M. Prof. (3)	M. W. F. 11.15 Th. 10.15	T. 304	26 Hamilton terrace
McRae, Frances E. Instr.		T.	81 Morningside ave.
McWhood, L. B. Tutor (6)	S. 12.30	206 So.	213 No. 6th st., Newark, N. J.
MacDowell, E. A. Prof. (3)	S. 12.30	203 So.	349 Central Park, W.
MacHale, F. S. Clin. Asst. (10)		V. C.	317 E. 87
Maclay, J. Instr. (4)	M. W. 11.30–12	404 C.	419 W. 118
Mallett, E. P. Clin. Asst. (10)		V. C.	72 W. 68
Mallett, G. H. Clin. Asst. (10)		V. C.	65 W. 69
Maltby, Margaret E. Instr. (5)	W. 10.30–11	B. 420	Fiske Hall, Barnard
Markoe, F. H. Prof. (4)		P. & S.	15 E. 49
Markoe, T. M. Emer. Prof. (10)			500 Madison ave.
Martin, W. Instr. (5)		P. & S.	63 E. 56

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Matthews, B. Prof. (2)	T. Th. 1	502 F.	681 West End ave.
May, C. H. Instr. (4)		P. & S.	692 Madison ave.
Mayer, R. E. Instr. (4)	M.–F. 2–5	602 E.	
Mayo-Smith, R. Prof. (1)	M. W. F. 2.30–3.30	407 L.	305 W. 77
Meeker, H. E. Clin. Asst. (10)		V. C.	195 Lenox ave.
Menut, Eugenie, Instr.		T.	560 Park ave.
Metcalf, Elizabeth, Sec. to Dean, Barnard College		B.	Fiske Hall, Barnard
Metcalfe, J. T. Emer. Prof. (10)			Cold Spring, N. Y.
Meyer, Anna E. H. Asst. Sec. to Dean, Barnard College			8 W. 59
Michaelis, A. Clin. Asst. (10)		V. C.	63 E. 110
Miller, E. H. Instr. (5)	T.–F. 11.30–12.30	507 H.	312 Manhattan ave.
Miller, S. O. Asst. (7)	M.–F. 2.30–4.30	603 E.	West Nyack, N. Y.
Mills, J. M. Clin. Asst. (10)		V. C.	651 Madison ave.
Mitchell, H. B. Tutor (7)	M.–F. 11.30–12.15	402 C.	Linden Hill, Flushing, N.Y.
Mitchell, S. A. Tutor (6)	M. W. 10.30–11.30 T. Th. 9.30–10.30	606 F.	58 Morningside ave.
Monroe, P. Adj. Prof. (3)	T. Th. 2.30–3.30; S. 9–9.30	T.	35 Caryl ave., Yonkers, N.Y.
Moore, J. B. Prof. (2)	M.–F. 9–5	411 L.	524 W. 150
Morgan, J. L. R. Tutor (6)	M.–F. 2–3	411 H.	New Brunswick, N. J.
Moses, A. J. Prof. (1)	F. 2.30–4	307 S.	Morristown, N. J.
Munroe, H. S. Prof. (1)	T. Th. 11.30–12.30	409 E.	227 Riverside drive
Neish, A. C. Asst. (8)	Daily 2.30–5.30	516 H.	281 W. 119
Nelson, C. A. Reference Librarian	Daily 9–5.30	L. Reading Room	510 W. 143
Neuhaus, G. E. Clin. Asst. (10)		V. C.	
Neumann, W. F. Asst. (7)		P. & S.	114 E. 59
Nitze, W. A. Lect. (8)	M. 2.30	307 W.	128 W. 103
Norrie, V. H. Instr. (4)		P. & S.	21 W. 37
Oastler, F. R. Clin. Asst. (10)		V. C.	115 E. 56
Odell, G. C. D. Instr. (5)	T. 1.30–2.30 Th. 10.30–11.30	505 F.	44 W. 44
O'Grady, Caroline G. Instr.		T.	Fiske Hall

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Olcott, G. N. Lect. (8)	M.-F. 11.30-12.30	308 C.	249 W. 109
Ordronaux, J. Emer. Prof. (10)			30 Broad st.
Osborn, H. F. Prof. (2)	T. 3	608 S.	850 Madison ave.
Osgood, H. L. Prof. (2)	T. Th. 4.30	410 W.	526 W. 150
Page, C. H. Lect. (8)	Th. 2.30	306 W.	106 W. 105
Parker, H. C. Tutor (6)	M.-Th. 2.30-4.30	201 F.	21 Fort Greene pl., Bklyn.
Partridge, W. T. Lect. (8)		610 H.	58 W. 57
Paulmier, F. C. Asst. (7)	M.-F. 9.30-12.30	617 S.	417 Manhattan ave.
Peabody, G. L. Prof. (1)		P. & S.	57 W. 38
Peck, C. H. Asst. Instr. (5)		P. & S.	37 W. 48
Peck, H. T. Prof. (1)	T. Th. 10.30	301 C.	5 Park place, Stamford, Conn.
Pedersen, V. C. Asst. Dem. (6)		P. & S.	206 W. 45
Peele, R. Adj. Prof. (2)	M. W. F. 11.30-12.30	408 E.	351 W. 114
Pegram, G. B. Asst. (7)			The Grantley, 124th st., near Broadway
Pellew, C. E. Adj. Prof. (3)	M.-F. 1.30-2.30	409 H.	51 E. 54
Pendleton, F. E. Asst. (8)	M.-F. 11-12	604 E.	365 W. 116
Perry, E. D. Prof. (2)	Absent on leave		
Peters, W. H. G. Asst. Bursar (xi)		P. & S.	383 1st st., Bklyn.
Peterson, F. Instr. (5)		P. & S.	4 W. 50
Pfister, J. C. Tutor (6)	M. T. Th. F. 9.30-10.30 2.30-3.30	614 F.	240 Sixth ave. (Roseville), Newark, N. J.
Pollard, D. H. Asst. (7)	Daily 9.30-11.30	404 C.	Winnipauk, Conn.
Poore, C. T. Clin. Lect. (4)		P. & S.	43 W. 53
Pratt, Isabelle L. Sec. to Dean, Teachers College		T.	221 W. 104
Pratt, Winona M. Asst.		T.	417 W. 118
Prettyman, V. Prin. of High School		T.	554 So. Broadway, Yonkers, N. Y.
Price, T. R. Prof. (1)	M.-Th. 1.30	509 F.	62 W. 39
Proben, C. I. Clin. Asst. (10)		V. C.	970 Lexington ave.
Prudden, T. M. Prof. (2)		P. & S.	160 W. 59
Pupin, M. I. Adj. Prof. (2)	M. W. F. 11.30-12.30	203 E.	280 No. Broadway, Yonkers, N. Y.
Putnam, W. Lect. (8)	W. 11.30-12.30	505 F.	608 W. 113

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Quackenbos, J. D. Emer. Prof. (10)			331 W. 28
Raper, C. L. Lect. (9)	M. 2-3 Th. 11-12	B. 317	463 Manhattan ave.
Rea, Matilda G. Instr.		T.	30 W. 25
Rees, J. K. Prof. (1)	M.-Th. 2.30-3.30	610 F.	1 W. 72
Remy, A. F. J. Tutor (7)	M. 3.30 W. 11.30	312 W.	112 W. 137
Reynolds, W. S. Clin. Asst. (10)		V. C.	54 W. 94
Richards, A. N. Asst. (7)		P. & S.	45 W. 60
Richards, C. R. Prof. (3)	M. W. F. 2.30-3.30	T. 122	230 W. 105
Richards, H. M. Instr. (5)	M.-F. 10.30-11.30	B. 316	847 West End ave.
Ripley, W. Z. Prize Lect. (8)			
Robbins, Ida E. Asst.		T.	417 W. 118
Robinson, J. H. Prof. and Acting Dean of Barnard College (3)	M. T. Th. 2.15-3.15 W. F. 3.30-4.30 T.Th. 10-10.30	B. 403 L.	170 W. 85
Robinson, W. S. Instr.		T.	202 W. 74
Rockwell, W. H., Jr. Asst. Dem. (6)		P. & S.	109 W. 78
Rogers, J. D. Lect. (8)	T. Th. 2.30-3	305 C.	296 Manhattan ave.
Rogers, Mary Instr.		T.	138 W. 93
Rood, O. N. Prof. (1)	F. 12.30	307 F.	565 Park ave.
Rouillion, L. Instr.		T.	49 W. 44
Rovinsky, A. Clin. Asst. (10)		V. C.	
Runyan, Mary D. Prof.	T. W. Th. F. 11.30 M. W. 3.30	T.	417 W. 118
Russell, J. E. Prof. and Dean Teachers College (3)	M.-F. 11.30-1	T. 101	317 W. 103
Savage, W. L. Dir. Gym. (xi)	M.-Th. 9-1.30; T. F. 5-6.30	U.	606 W. 113
Schenck, Aletta V. W. Instr.		T.	165 Lenox ave.
Schussler, Amy, Instr.		T.	474 W. 150
Seligman, E. R. A. Prof. (1)	T. Th. 3-3.30	409 L.	324 W. 86
Sever, G. F. Instr. (4)			115 W. 47
Seward, Mary, Instr.		T.	113 W. 85
Shepherd, W. R. Tutor (7)	T. Th. 1.30	406 W.	930 West End ave.
Sherman, F. D. Adj. Prof. (2)	M. 10.30-11.30; W. F. 2.30-4	603 H.	312 So. Broadway, Yonkers, N. Y.
Sherman, H. C. Lect. (8)	T. Th. 11.30-12.30	509 H.	1161 Amsterdam ave.
Shotwell, J. T. Asst. (9)	M. W. F. 2-3	513 W.	
Shrady, A. M. Clin. Asst. (10)		V. C.	1 W. 68

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Silver, L. M. Clin. Asst. (10)		V. C.	103 W. 72
Simpson, W. K. Instr. (5)		P. & S.	952 Lexington ave.
Sleffel, C. C. Instr. (5)	Daily 9–10	T. 32	554 W. 125
Sloane, W. M. Prof. (3)	F. 10.30–11.30	301 L.	
Smith, M. Prof. (1)	T. Th. F. 2.30–3.30	404 L.	635 W. 115
Snelling, G. T. Instr. (4)	Alternate Th. 10.30–1 2.30–5	602 H.	56 W. 33
Sondern, P. F. Clin. Asst. (10)		V. C.	19 E. 38
Sour, B. Clin. Asst. (10)		V. C.	68 W. 97
Speranza, C. L. Adj. Prof. (3)	M. W. F. 12.30–1.30 T. Th. 3.30–4.30	305 W.	153 E. 72
Spingarn, J. E. Tutor (7)	M. 12–12.30	511 F.	118 E. 58
Starr, M. A. Prof. (1)		P. & S.	5 W. 54
Stein, J. B. Clin. Asst. (10)		V. C.	30 W. 15
Stevens, Ellen Y. Instr.		T.	419 W. 118
Stiefel, B. W. Clin. Asst. (10)		V. C.	127 E. 73
Stone, H. F. Lect. (8)	M. T. 5.30–6	412 L.	237 W. 108
Stone, W. S. Instr. (4)		P. & S.	1730 Broadway
Strong, C. A. Lect. (8)	T. W. Th. 2.30	409 S.	Pocantico Hills, N. Y.
Strong, O. S. Tutor (6)	T. W. 10–11.30	612 S.	417 Manhattan ave.
Struthers, J. Hon. Lect. (9)		105 H.	624 E. 136
Sumner, A. E. Instr. (5)		P. & S.	122 W. 58
Sutherland, Louise C. Asst.		T.	Fiske Hall, Barnard
Swift, G. M. Instr. (5)		P. & S.	20 W. 55
Taylor, A. J. Clin. Asst. (10)		V. C.	
Taylor, A. S. Asst. Instr. (5)		P. & S.	152 W. 57
Taylor, R. W. Clin. Prof. (4)		P. & S.	40 W. 21
Terrell, A. G. Clin. Asst. (10)		V. C.	406 W. 57
Terry, C. T. Lect. (8)	M. T. Th. F. 4.15–4.30 5.20–5.45	414 L.	23 E. 77
Thacher, J. S. Dem. (6)		P. & S.	33 W. 39
Thomas, C. Prof. (3)	T. Th. 10.30–11.30	310 W.	501 W. 113
Thomas, T. G. Emer. Prof. (10)			600 Madison ave.
Thorndike, E. L. Instr.		T.	530 W. 123
Thurber, S. W. Clin. Asst. (10)		V. C.	251 W. 73
Timme, W. Clin. Asst. (10)		V. C.	102 W. 85
Tingle, A. Asst. (8)	T. F. 4.30–5.30	505 H.	234 W. 122
Todd, H. A. Prof. (2)	Absent on leave		
Tombo, R., Sr. Tutor (6)	M. W. F. 11.30–12.30	B. 317	587 Walton ave.
Tombo, R., Jr. Tutor (7)	T. Th. 11.30–12.30	315 W.	587 Walton ave.
Townsend, F. Tutor (6)	Daily 9.30–5.30	505 E.	173 Fifth ave.
Trent, W. P. Prof. (3)	T. Th. 10–10.30 M. W. 10.30–11.30	502 F. B. 216	226 West End ave.

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Trenwith, W. D. Clin. Asst. (10)		V. C.	140 W. 94
Trowbridge, C. C. Tutor (6)	M. T. W. F. 11.30–12.30	401 F.	13 E. 46
Tucker, S. A. Tutor (6)	Daily 9.30–5	421 H.	81 E. 56
Tufts, F. L. Tutor (6)	T. Th. 10.30–11.30	409 F.	
Tuttle, G. M. Prof. (1)		P. & S.	38 W. 52
Tyson, H. H. Clin. Asst. (10)		V. C.	47 W. 51
Underhill, J. G. Asst. (7)	F. 2.30–3.30	511 F.	97 Lafayette ave., Bklyn.
Underwood, L. M. Prof. (3)	M. F. 9.30–11.30	506 S.	600 W. 114
Updegraff, H. Asst. (7)	M. T. Th. F. 2.30	421 L.	361 W. 123
Van Amringe, J. H. Prof. and Dean Columbia College (1)	M. W. 1.30	205 C.	204 W. 44
Van Arsdale, May B. Instr.		T.	505 W. 112
Van De Water, G. R. Chapl.	T. Th. 9.30–12	415 W.	7 W. 122
Van Ingen, G. Curator (8)	Daily 12.30	101 S.	245 W. 116
Von Saltza, C. F. Instr.	Absent on leave	T.	
Voorhees, J. D. Tutor (7)		P. & S.	126 W. 58
Vosburgh, A. S. Asst. Dem. (6)		P. & S.	40 W. 88
Vulté, H. T. Instr. (4)	T. W. Th. 4.30–5	P. & S.	33 Park ave., New Rochelle, N. Y.
Wadsworth, A. B. Asst. (7)		P. & S.	112 W. 55
Walker, Susan G. Head of Fiske Hall		B.	Fiske Hall, Barnard
Wallace, C. Clin. Asst. (9)		V. C.	165 W. 80
Waller, N. B. Clin. Asst. (10)		V. C.	69 E. 90
Ware, W. R. Prof. (1)	M. T. Th. 2.30–3.30	607 H.	130 E. 27
Warren, C. P. Tutor (6)	T. W. 9.30–10.30	603 H.	48 W. 9
Warren, G. W. Lect. and Organist	M.–F. 8.45–9.30	305 S.	316 W. 82
Watterson, Ada, Asst. (8)	M. W. 11.30	B. 313	153 W. 84
Way, Charlotte M. Asst.		T.	145 W. 117
Weick, C. W. Instr. (5)		119 T.	554 W. 125
Weir, R. F. Prof. (2)		P. & S.	11 E. 54
Weiser, Lucy H. Instr.		T.	419 W. 117
Wells, J. S. C. Instr. (4)	Th. 12.30–1.30	513 H.	
Welzmiller, L. R. Clin. Asst. (10)		V. C.	157 W. 80
Wheeler, J. R. Prof. (2)	M. W. 11.30	304 C.	433 W. 117
Whitaker, M. C. Tutor (6)	M. W. F. 10.30–1.30	303 H.	184 St. Nicholas ave.
Whiting, C. A. Tutor (7)		P. & S.	24 W. 45
Whitlock, H. P. Asst. (7)	M.–F. 2.30–4.30	106 S.	449 Park ave.
Whitman, R. Instr. (4)		P. & S.	126 W. 59
Whittemore, Laura B. Instr.		T.	8 Morningside ave.

NAME	OFFICE HOURS	OFFICE	RESIDENCE
Wilcox, E. N. Asst. (7)		P. & S.	43 W. 75
Willard, Meriel W. Asst.		T.	106 W. 105
Williams, R. H. Instr.		T.	
Williamson, E. L. Clin. Asst. (10)		V. C.	163 W. 74
Wilson, E. B. Prof. (2)	T. W. Th. 10–12	609 S.	305 W. 78
Winchester, Mariam C. Asst.		T.	Hotel Endicott, 81st st. and Columbus ave.
Wohlfarth, Julia H. Prin. El. Sch.		T.	Fiske Hall, Barnard
Wood, F. C. Instr. (5)		P. & S.	8 E. 49
Woodberry, G. E. Prof. (2)	W. 11.30	511 F.	
Woodhull, J. F. Prof. (1)	M. W. F. 3.30–4.30	T. 413	610 Van Cortlandt Park ave., Caryl, Yonkers, N. Y.
Woodward, B. D. Instr. (4)	Absent on leave		
Woodward, R. S. Prof. and Dean School of Pure Science (2)	M. W. F. 11.30–12.30	406 F.	408 W. 145
Woolman, Mrs. Mary S. Adj. Prof.	M. 2.30–3.30 W. 9.30–10.30	T.	21 W. 101
Woolson, I. H. Instr. (4)		308 E.	201 Franklin st., Astoria, L. I.
Yohannan, A. Lect. (8)	Th. 2.30	402 W.	138 E. 48
Young, C. H. Instr. (4)	T. 2.30–3.30	305 C.	312 W. 88

DIRECTORY OF STUDENTS

The italic letter following the name indicates the school in which the student is primarily registered—as follows :

c College
l School of Law
m School of Medicine
p School of Pure Science
ph School of Philosophy
pl School of Political Science
s Schools of Mines, Chemistry, Engineering, and Architecture
b Barnard College
t Teachers College

The numbers 1, 2, 3, and 4 preceding these letters indicate the class; sp, special student ; gr, graduate student in the professional schools.

NOTE.—All students of Barnard College (*b*) are women. The names of the women students under the Faculties of Political Science, Philosophy, and Pure Science (*pl*, *ph*, *p*) and of Teachers College (*t*) are prefixed by "Miss" and "Mrs."

Aarons, S. H. 2 *l*	130 E. 76
Abbe, W. 3 *l*	875 West End ave.
Abbott, C. G. 2 *c*	336 W. 71
Abbott, Miss M. gr *t*	111 E. 112
Abel, S. 2 *m*	216 E. 6
Abeles, H. 1 *c*	169 E. 90
Abell, W. M. *pl*	Mt. Vernon, N. Y.
Abelson, P. *pl*	250 Henry
Abendroth, W. P. 1 *s*	549 W. 152
Abraham, H. 2 *s*	13 W. 89
Abramowitz, H. *ph*	229 W. 129
Abrams, E. M. sp *b*	Fiske Hall, Barnard
Abreu, L. G. 2 *s*	201 W. 117
Ach, I. L. sp *t*	Public School 3, Grove and Hudson sts.
Ache, P. S. 1 *l*	362 W. 123
Acker, A. J. 1 *s*	239 W. 49
Acton, H. W. 2 *l*	82 W. 132
Adams, J. B. 2 *l*	23 W. 10
Adams, J. K. 3 *m*	E. Orange, N. J.
Adams, J. P. H. 1 *l*	202 W. 103
Adams, M. T. 3 *s*	20 Morningside ave.
Adams, P. A. 2 *m*	441 W. 57
Adams, R. A. 1 *m*	16 St. Nicholas pl.
Adams, W. H. *pl*	129 W. 85
Addoms, J. A. 2 *b*	Boston road, cor. 168
Adelson, J. 4 *m*	213 W. 135
Adenaw, A. P. F. 4 *s*	116 E. 26
Adey, M. H. 1 *b*	445 Lenox ave.
Adler, H. M. 4 *m*	12 E. 60
Agan, M. L. 2 *m*	62 W. 132
Agate, F. J. 2 *c*	280 N. Bway., Yonkers, N. Y.
Ager, J. W. 2 *s*	296 Carlton ave., Bklyn
Agnew, J. C. 1 *s*	5 Convent Hill, W. 130
Aicher, F. A. 1 *s*	Columbia University
Akin, A. J., II. 1 *c*	64 W. 49
Albers, H., Jr. 2 *l*	240 Decatur, Bklyn
Alexander, A. J. A. 4 *m*	135 W. 64
Alexander, G. M. 1 *m*	132 W. 111
Alexander, H. B. *ph*	143 W. 122
Alexander, L. B. 1 *s*	940 St. Nicholas ave.
Alexander, Miss S. A. sp *t*	203 W. 103
Alger, L. B. gr *t*	432 W. 124
Allan, A. R. sp. *c*	51 W. 37
Allen, A. H. 1 *m*	366 W. 57
Allen, Miss B. 3 *t*	130 Shippen, Weehawken, N. J.
Allen, B. G. 1 *m*	431 W. 57

Allen, D. G. 2 *m* 317 W. 58
Allen, E. 3 *b* 203 Montague, Bklyn
Allen, Miss L. B. *ph* 184 W. 135
Allen, Miss M. E. 3 *t*
Allen, T. H. 1 *c* 322 St. Nicholas ave.
Allen, W. F. 2 *c*
Aller, G. P. 3 *b* 183 S. Oxford, Bklyn
Allers, C. L. 1 *m* 160 Westervelt ave., New Brighton, N. Y.
Alsberg, E. 3 *b* 40 W. 94
Alsberg, H. G. 1 *l* 40 W. 94
Alsberg, J. 4 *s* 40 W. 94
Alter, J. E. 4 *m* 167 E. 94
Ames, E. H. 2 *m* 37 Clinton ave., Jersey City
Anderson, R. W. K. 3 *l* 358 W. 118
Andrews, W. A. 2 *c* 412 W. 115
Andrews, W. B. 2 *m* 352 W. 55
Angell, H. D. 1 *l* 235 W. 123
Angell, Miss N. gr *t* 505 W. 112
Ansley, G. H. 2 *l* 343 W. 121
Ansorge, M. C. 2 *c* 102 W. 132
Anspacher, L. K. 2 *l* 77 E. 116
Anspacher, P. B. 1 *l*
Aparicio, E. R. 1 *s* 121 W. 90
Appel, F. J. gr *t* 166 W. 123
Appell, E. M. 1 *b* 30 N. 10th ave., Mt. Vernon, N. Y.
Appleby, A. J. sp *t* 113 E. 122
Applegate, C. M. 1 *b* 107 E. 80
Ardagh, A. E. sp *m* 73 Madison ave.
Arens, M. 3 *l* 209 50, Bklyn
Argall, G. O. 1 *s* 362 W. 121
Arkell, J., Jr. 1 *s* 18 W. 31
Armington, H. H. 1 *m* 441 W. 57
Armstead, D. M. 2 *s* 614 W. 113
Armstrong, D. 4 *c* Rahway, N. J.
Armstrong, H. 3 *s* 227 W. 122
Armstrong, K. sp *b* Fiske Hall, Barnard
Armstrong, L. E. 3 *l* 127 W. 129
Arnaud, L. G. 1 *b* 672 10, Bklyn
Arndtstein, L. 1 *l* 413 E. 51
Aronson, D. A. 3 *l* 43 E. 75
Aronson, J. J. 3 *l* 241 E. 116
Aronson, L. S. 1 *m* 95 Attorney
Asch, D. 2 *c* 114 W. 64
Asch, J. J. 3 *m* 780 Lexington ave.
Asher, Miss L. 1 *t* 54 Morningside ave.
Ashley, E. 1 *s* 747 St. Nicholas ave.
Ashley, R. E. 3 *s* 358 W. 123
Assenheimer, E. M. 2 *m* 323 E. 51
Atkins, G. C. 3 *c* 195 Bway
Atkinson, Mrs. A. M. sp *t* 236 W. 130
Atkinson, J. H. *ph* 210 W. 123
Atkinson, J. N. 1 *l* 604 W. 114
Atterholt, F. M., Jr. 1 *l*
Attwood, F. J., Jr. 1 *s* 246A Monroe, Bklyn
Atwood, Miss T. 4 *t* 608 Lexington ave.
Austin, A. S. 2 *s* 300 Manhattan ave.
Austin, Miss M. R. 3 *t* 45 W. 71
Averill, F. C. 3 *l* 416 W. 118
Averill, M. K. 3 *l* 7 W. 120
Avery, Miss C. A. *ph* 323 W. 28
Avery, O. T. 1 *m* 477 W. 22
Avery, S. R. sp *c* 205 Buena Vista ave., Yonkers, N. Y.
Axtell, Miss F. J. sp *t* 367 Willis ave.
Ayres, Miss M. S. gr *t* 111 Hancock, Bklyn

Babcock, I. S. sp *b* Nyack, N. Y.
Bachman, F. P. gr *t* 362 W. 123
Bacon, D. R. 2 *c* 1161 Amsterdam ave.
Bacon, L. A. 4 *t* 154 W. 85
Bacon, M. K. 1 *b* Fiske Hall, Barnard
Bacon, Miss P. gr *t* Rosebank, S. I.
Bacon, W. C. *pl* 20 W. 10
Baer, Miss D. 4 *t* 203 W. 117
Baer, H. M. 4 *s* 40 W. 87
Baff, M. 3 *m* 96 Wallace, Newark, N. J.
Bainton, J. H. 4 *m* 75 W. 68
Baird, A. W. 4 *m* 239 W. 70
Baird, W. E. 2 *l* 305 W. 112
Baker, C. A. 2 *l* 294 Manhattan ave.
Baker, C. F. 3 *m* 250 Mulberry, Newark, N. J.
Baker, E. B. G. 3 *l* 371 W. 123
Baker, E. W. 4 *c* 119 W. 121
Baker, F. R. 2 *m* 438 W. 57
Baker, Miss H. J. 2 *t* 294 Manhattan ave.
Baker, L. B. 3 *l* 2684 Bway
Baker, S. 1 *s* 314 W. 88
Baldwin, A. P. gr *t* 361 Stuyvesant ave., Bklyn
Baldwin, Miss F. T. *ph* 417 W. 118
Baldwin, W. S. 2 *m* 310 W. 115
Ball, A. P. *ph* 530 W. 123
Ball, C. E. A. 1 *m* 153 Valley, S. Orange, N. J.
Ball, M. E. P. sp *b* 606 W. 103
Bama, L. 2 *m* 1962 Amsterdam ave.
Bambach, G. F. 2 *c* 982 6th ave.
Bamberger, A. C. J. 2 *b* 152 W. 73
Bamberger, S. M. 2 *s* 123 W. 111
Bancroft, J. 3 *c* 9 W. 90
Bandler, C. G. 1 *m* 165 Lenox ave.
Bandler, M. E. 4 *c* 31 W. 84
Banister, R. L. 1 *m* 206 Roseville ave., Newark, N. J.
Banks, E. M. *pl* 271 W. 122

Banwell, Miss H. M. sp *t* 160 W. 79
Bard, H. E. *ph* 41 E. 69
Baretta, V. sp *c*
127 Prospect pl., Bklyn
Barker, S. 4 *c* 339 W. 71
Barker, S. R. 1 *b* Irvington, N. Y.
Barkley, C. B. 3 *l* N. Y. Athletic Club
Barlow, Miss H. S. 4 *t*
care Col. T. W. Barlow, Army Bldg
Barnert, C. 1 *m*
284 Ellison, Paterson, N. J.
Barnert, M. 1 *s*
284 Ellison, Paterson, N. J.
Barnes, H. 2 *m* Ashton, R. I.
Barnes, M. W. sp *b* 1 W. 81
Barnes, N. W. 2 *c*
85 Lander, Newburgh, N. Y.
Barnett, J. F. *pl* 123 W. 74
Barrett, Miss D. V. 1 *t* 316 W. 52
Barrett, H. H. 3 *m* 119 W. 96
Barrett, J. M. 2 *l* 10 W. 90
Barrett, Mrs. K. C. sp *t*
285 Grand ave., L. I. City
Barrick, M. O. 4 *b* 20 Elizabeth,
Jersey City, N. J.
Bartholomae, H. J. 2 *l* 230 W. 75
Bartholomew, R. B. 1 *c* St. Anthony
Hall, 116th st. and Riverside dr.
Barton, F. W. 4 *m* 139 W. 63
Bartow, C. W. 3 *c*
38 Wardell, Astoria, L. I.
Bartrum, W. C. 1 *m* 135 W. 64
Barwick, Miss M. J. 3 *t* 419 W. 118
Bason, Miss I. E. sp *t*
Little Neck, L. I.
Bass, M. H. 1 *c* 73 W. 91
Bassett, J., Jr. 3 *c* 318 W. 121
Batchelder, G. N. *p* 220 W. 116
care Mrs. Hill
Batchelor, C. B. 1 *c* 245 W. 50
Bates, Miss A. B. *pl*
312 Manhattan ave.
Bates, C. D. *pl* 41 E. 69
Bates, J. G. 1 *c* 113 W. 72
Bates, L. W. 4 *s*
80 Columbia hts., Bklyn
Bateson, C. E. W. 3 *s* 257 W. 88
Battey, L. B. 3 *t* Englewood, N. J.
Bauchelle, J. F. 2 *s* 76 Park pl.
Bauman, L. 4 *m* 342 E. 8
Bavetta, V. sp *c*
127 Prospect pl., Bklyn
Bayles, H. 4 *m* New Rochelle, N. Y.
Bayne, H. 4 *s* 348 Riverside dr.
Baxter, H. W. 1 *c* 237 W. 76
Beach, R. M. 3 *m* 434 6, Bklyn
Beardslee, E. B. gr *t*
235 Amity, Flushing, L. I.
Beattie, W. H. 2 *m* 130 W. 71

Beatty, Miss E. 4 *t* 301 W. 112
Beatty, Miss E. M. sp *t*
Fiske Hall, Barnard
Bebout, E. gr *t* Westwood, N. J.
Bechert, A. O. 2 *c* 118 Jefferson,
Bklyn
Becker, M., Jr. gr *t*
Kouwenhoven pl., Bklyn
Becket, F. M. *p* 318 W. 57
Beckhardt, M. *ph* 333 E. 119
Bedell, Miss H. L. 2 *t* 408 W. 115
Beeckman, F. L. 1 *b* 190 W. 100
Beegle, Miss M. P. 2 *t* 20 W. 19
Beekman, C. C. 2 *l* Bath, N. Y.
Beekman, H. R., Jr. 1 *c* 35 W. 17
Beer, A. 4 *b* 38 W. 77
Beers, W. F., Jr. 4 *c* San Remo Hotel
Beers, W. H. 2 *s* Mamaroneck, N. Y.
Behr, Miss E. 2 *t* 869 President, Bklyn
Behrens, Miss S. M. sp *t*
1848 Boston road
Beifeld, M. M. 1 *b* 302 W. 138
Belcher, F. E. 3 *b* Mt. Vernon, N. Y.
Belcher, Miss S. D. *pl* 542 5th ave.
Bell, A. MacD. 1 *m* 129 W. 61
Bell, H. W. 3 *m* 112 E. 64
Bell, W. B. 1 *l* 478 Central Park, W.
Beller, Miss W. C. gr *t* 55 E. 112
Belloms, R. H. 2 *t* 432 W. 124
Bellows, R. H. 3 *c* 432 W. 124
Benedict, A. C. 4 *m* 86 Convent ave.
Benedict, F. N. 1 *s* 205 W. 106
Benedict, Miss M. *pl* 14 S. Oxford,
Bklyn
Benjamin, F. E. 1 *c* 29 W. 128
Benjamin, H. I. 1 *s* 316 W. 91
Bennett, Miss S. 4 *t*
26th Ward Bank, Bklyn
Bennett, W. C. 3 *l* 416 W. 118
Bennion, M. *ph* 434 W. 124
Bensel, W. A. 4 *c* 111 W. 126
Bentel, G. E. 3 *l* 261 W. 112
Bentley, R. C. gr *t*
Bentz, G. H. 2 *m* 309 E. 86
Benziger, B. C. 2 *l* New Brighton, S. I.
Berg, W. N. 1 *s* 331 E. 88
Bergamini, Miss R. sp *t* 55 W. 9
Bergen, E. G. 3 *b*
90 Sterling pl., Bklyn
Berkeley, F. C. 3 *b* 121 E. 26
Berliner, R. W. sp *s* 145 W. 78
Bernheim, G. B. 4 *s* 74 E. 79
Bernstein, G. W. 2 *s* 106 E. 19
Berrien, C. L. 2 *s* 417 W. 117
Berry, E. 4 *b* 50 S. Walnut,
E. Orange, N. J.
Bertholf, Miss E. K. *t* 218 W. 123
Bertholf, Miss K. I. 3 *t* 301 W. 106
Berwald, Miss E. S. 4 *t* 158 E. 107

Best, Miss F. E. gr *t*
Dongan Hills, N. Y.
Betowski, L. S. 3 *m* 127 W. 61
Beveridge, J. W. 4 *m* 143 W. 72
Bevier, K. gr *t* 106 W. 61
Beyer, A. H., Jr. 2 *s*
510 Warwick, Bklyn
Beyer, R. P. 2 *l* 511 E. 117
Biegeleisen, J. Z. 1 *m* 146 Stanton
Bigelow, L. S. *ph* 136 W. 91
Biglow, L. C. 2 *s* 477 W. 143
Bigongiari, D. 2 *c* 131 Sands, Bklyn
Bill, P. W. 4 *m* 316 W. 57
Billings, L. sp *b* 279 Madison ave.
Birnbaum, M. 3 *l* 169 E. 88
Bishop, O. M. 2 *s* 881 5th ave.
Bishop, R. N. 3 *s*
1161 Amsterdam ave.
Bishop, S. R. sp *s* 39 W. 24
Bishop, W. W. *ph* 59 Livingston
Bissell, H. M. 2 *l* 369 W. 120
Bissell, P. 3 *m* 9 W. 64
Black, M. F. 1 *m* 427 W. 57
Blackford, Miss G. R. 2 *t* 412 W. 115
Blair, C. W. 4 *t* 3133 Bway
Blake, C. H., Jr. 1 *c* Englewood, N. J.
Blake, Miss M. 3 *t* 12 Highland ave.,
Jersey City, N. J.
Blakely, E. B. 3 *c* 126 W. 49
Blancard, W. 1 *m* 328 E. 87
Blanchard, Miss A. 3 *t* 420 W. 124
Blanford, Miss M. 3 *t* 420 W. 124
Blauner, S. 1 *m* 134 Rivington
Bleich, S. D. 3 *s* 129 Cannon
Bless, R. A. 1 *m* Mountain View, N. J.
Blessing, C. W. *ph* 214 W. 122
Bliss, R. F. 4 *m* 383 Park pl., Bklyn
Bliss, R. P. *p* 87 Hicks, Bklyn
Bloch, B. I. 2 *l* 89 W. 134
Block, M. 2 *m* 222 E. Bway
Block, S. J. 1 *l* 86 E. 111
Blodgett, F. H. *p* cor. Webster ave.
and Tower pl., Bedford Park
Blood, A. P. gr *t* 417 W. 118
Bloodgood, L. D. 4 *b*
320 Clermont ave., Bklyn
Bloom, D. M. 2 *m*
155 Plane, Newark, N. J.
Bloomfield, A. J. 1 *c* 80 W. 106
Blue, J. H. 4 *m* Montgomery, Ala.
Blumenthal, E. 3 *l* 563 West End ave.
Blumgart, L. 2 *m* 266 S. Orange ave.,
Newark, N. J.
Blun, W. S. 1 *l* 254 W. 98
Boardman, C. I. 1 *l* 227 W. 122
Bock, R. 1 *m* 246 E. 72
Bodenheimer, M. 2 *m* 336 E. 50
Bodler J. W. W. gr *t*
1961 Madison ave.
Boehm, A. A. 4 *c* 41 W. 89
Boehm, L. C. 1 *l* 300 Manhattan ave.
Boese, W. H. 4 *c* 702 E. 158
Bogart, P. N. 2 *l* 174 W. 126
Bogart, Miss S. H. *ph*
2033 Washington ave.
Bogert, H. L., Jr. 1 *c* Flushing, N.Y.
Bogia, S. H. 2 *b* 139 Howe ave.,
Passaic, N. J.
Bogue, F. T. 1 *c* 836 Union, Bklyn
Bogue, M. G. 1 *l*
Riverside dr. and 116
Bohm, O. H. 4 *m* 170 Jefferson,
Yonkers, N. Y.
Boisse, P. S. 2 *c* 137 E. 73
Bolduan, C. F. 4 *m*
226 Glenmore ave., Bklyn
Bondy, J. 1 *m*
515 E. 86, care M. Greditzer
Bonnell, C. H. 3 *m* 71 W. 41
Bonnell, Miss M. J. sp *t*
216 Bellville ave., Newark, N. J.
Bonsall, V. F. M. 4 *c* 160 W. 95
Bookman, A. 4 *m* 9 E. 62
Bookwalter, Mrs. M. L. 4 *t* 8 W. 64
Boone, E. W. 4 *c* 412 W. 115
Boote, G. E. 3 *b*
128 Webster ave., Yonkers, N. Y.
Booth, F. H. 3 *m* Elmhurst, N. Y.
Bopp, W. F. 1 *m* 39 7
Borden, J. H. 2 *m* 52 W. 130
Borden, W. H., Jr. 4 *s* 114 W. 23
Bordwell, W. P. *pl* 203 W. 106
Boroschek, L. *p* 149 E. 56
Borsody, A. 1 *s* 325 E. 82
Bos, G. A. 4 *s* 123 W. 106
Boss, M. H. 1 *c* 73 W. 91
Bosse, K. K. *ph* 24 W. 8
Botty, G. M. 3 *l* 319 E. 86
Boughton, W. gr *t* 82 E. 18, Bklyn
Boulger, M. R. 1 *b* 53 St. Nicholas ave.
Bourke, J. F. 1 *m* 144 W. 12
Bovie, V. M. 1 *l*
Bowdich, L. F. 4 *c*
88 Puntine, Jamaica, L. I.
Bower, Miss M. L. 3 *t* 522 W. 123
Bowman, J. F. 1 *m* Montclair, N. J.
Bowne, S. W. 4 *c* Hotel Majestic
Boyd, W. B. *p* 40 Perry
Boyd, W. K. *pl* 491 Manhattan ave.
Boydstun, J. F. *ph* 243 W. 109
Boyesen, A. K. 1 *c* 61 E. 52
Boyesen, B. H. 1 *c* 61 E. 52
Boyle, E. M. 1 *l* 334 W. 19
Brace, D. C. 1 *c* 11 W. 106
Bracker, M. H. 3 *m* 97 2d ave.
Brackett, Miss M. M. *p*
945 Lexington ave.
Bradford, R. H. gr *s* 434 W. 124

Bradin, Miss S. V. sp *t* 372 Manhattan ave.
Bradley, A. B. 2 *s* 44 Broad
Bradley, A. B. A. 3 *c* 304 W. 83
Bradley, J. A. 3 *s* 234 W. 129
Brady, L. H. 2 *s* 366 W. 118
Brand, A. 1 *m* 634 5
Brandon, V. I. 4 *s* 40 W. 89
Branower, W. 1 *m* 208 Rivington
Braun, A. 3 *m* 121 E. 112
Breed, R. H. 1 *m* 107 W. 74
Breese, B. B. *ph* Irvington-on-Hudson, N. Y.
Breneman, H. C. 3 *s* 351 W. 119
Brennglass, J. 2 *m* 1478 1st ave.
Brewer, Mrs. M. S. sp *t* 152 W. 82
Brewster, G. F. sp *m* 353 W. 30
Bridge, G. A. 3 *m* 144 W. 65
Bridgman, Miss A. T. 3 *t* 157 W. 123
Briesen, H. V. 4 *s* Weehawken, N. J.
Brime, F. J. 1 *l* "The University Apartments"
Brimmer, G. E. 3 *l* 245 W. 132
Brinckerhoff, H. C. 2 *c* 416 W. 118
Britenstool, H. 4 *m* 783 Lexington ave.
Britt, A. *pl* 137 W. 103
Britton, H. B. 4 *s* 255 W. 75
Brodie, O. L. 4 *s* Port Richmond, N. Y.
Bromley, M. M. 1 *b* Fiske Hall, Barnard
Brooker, Miss J. H. 1 *t* 606 W. 113
Brooks, J. L. *ph* Madison, N. J.
Brooks, Miss M. E. sp *t* 457A Halsey, Bklyn
Broome, E. C. gr *t* 344 W. 32
Brophy, W. J. 2 *m* 136 W. 64
Bross, W. W. 3 *l* 337 E. 118
Brower, F. D. 4 *c* 109th st. and Riverside drive
Brown, A. J. 2 *m* 36 E. 69
Brown, B. 4 *b* 193 Central ave., Flushing, N. Y.
Brown, B. W. sp *m* 102 W. 44
Brown, C. 4 *s* 348 Central Park, W.
Brown, E. L. 3 *s* 614 W. 152
Brown, F. E. 2 *m* 591 Hancock, Bklyn
Brown, H. S. 3 *c*
Brown, J. L. P. 3 *b* 528 W. 123
Brown, Miss M. P. 1 *t* 419 W. 118
Brown, Miss M. R. gr *t* 528 W. 123
Brown, S. 3 *m* Sanford Hall, Flushing, L. I.
Brown, S. 3 *s* 348 Central Park, W.
Brown, Miss S. J. sp *t* 47 Van Buren, Bklyn
Browne, D. H. 1 *m* 121 W. 91
Browne, S. F. 4 *c* 3136 Bway
Bruce, E. B. 2 *c* Yonkers, N. Y.
Bruckman, Miss R. H. 3 *t* 419 W. 118
Brummer, S. D. *pl* 1356 Madison ave.
Brun, E. A. 1 *m* 165 W. 71
Brunn, Miss F. gr *t* 430 Grand ave., Bklyn
Brundage, P. E. 1 *m*
Brush, Miss J. W. 4 *t* 410 W. 115
Brussel, L. M. 2 *c* 10 E. 81
Bruver, M. S. sp *t* 152 W. 82
Bryant, R. R. 3 *m* 143 W. 61
Bryant, W. S., Jr. 1 *c* 350 W. 56
Brydges, R. L. *ph* Islip, L. I.
Bryson, Miss E. F. *ph* 164 W. 73
Bryson, R. St. C. 2 *l* 412 W. 115
Buchholz, G. W. 4 *s* 312 W. 86
Buchler, W. P. 4 *c* 200 W. 111
Buckmaster, F. C. 2 *s* Yonkers, N. Y.
Budd, M. H. 3 *b* Chester, N. J.
Budington, E. G. 3 *c* 275 Clinton ave., Bklyn
Budington, Miss E. H. 1 *t* 1270 Amsterdam ave.
Buerger, L. 4 *m* 164 W. 133
Buffington, M. 4 *b* Milburn, N. J.
Buffington, R. E. 4 *m* Short Hills, N. J.
Bugbee, H. G. 2 *m* 47 W. 49
Bühler, J. S. 4 *c* 1855 7th ave.
Bukofzer, E. sp *s* 2094 5th ave.
Bulkley, H. D. 4 *c* 4 E. 37
Bulkley, L. C. 4 *m* 4 E. 37
Bull, W. T. 3 *m* 62 W. 39
Bullard, O. 3 *c* 530 W. 123
Bullowa, J. G. M. 2 *m* 46 E. 66
Bullowa, R. J. M. 1 *l* 46 E. 66
Burbidge, T. A. 1 *s* 352 W. 120
Burd, C. G. *pl* 41 E. 69
Burdick, C. G. 2 *m* 42 E. 35
Burford, M. G. 2 *m* 83 S. 9, Bklyn
Burr, Miss M. gr *t* 132 W. 79
Burrell, N. M. 2 *l* 248 W. 75
Burrows, W. F. 4 *c* Elizabeth, N. J.
Burt, Miss A. G. *t* 912 W. 7 Plainfield, N. J.
Burt, H. R. 4 *s* 250 W. 88
Burtis, W. E. 1 *s* 30 S. Elliott pl., Bklyn
Burton, H. W. sp *b* Woodside, N. Y.
Busck, G. J. 3 *m* 28 E. 20
Busse, F. A. 2 *s* 202 W. 108
Bussmann, A. H. 3 *s* 186 Chestnut, Bklyn
Butler, E. R. 4 *b* 119 E. 30
Butler, Miss F. L. 1 *t* 38 Essex ave., Orange, N. J.
Butler, G. H., Jr. 2 *c* 964 5th ave.
Butterworth, Mrs. E. D. sp *t* 939 8th ave.
Butts, A. C., Jr. 3 *m* 1004 Trinity ave.

Butts, E. 1 *b* 518 Hudson, Hoboken, N. J.
Buxton, G. F. 3 *t* 241 6th ave., Newark, N. J.
Byers, R. T. 3 *l* 314 W. 113
Byone, Miss Julia 3 *t* 215 E. 21
Byrd, F. O. 1 *m* 69 Park ave.
Byron, T. P. 4 *c* 345 W. 123

Cabot, G. D. 2 *s* 2643 Bway
Cahen, E. J. 1 *b* 353 Central Park, W.
Cahn, A. G. 2 *b* 16 W. 131
Cairns, D. W. 4 *m* 40 Grove
Caldwell, A. 3 *c* 127 W. 111
Calhoun, M. E. sp *b* 27 Monroe pl., Bklyn
Camera, A. U. N. *ph* 1022 3d ave., Bklyn
Cameron, M. E. H. 4 *b* Woodside, N. Y.
Camp, A. R. 1 *s* 311 W. 104
Campbell, E. P. 2 *b* Fiske Hall, Barnard
Campbell, Miss J. 3 *t* 266 W. 40
Campbell, R. 1 *s* 371 W. 120
Campbell, S. 1 *s* Elizabeth, N. J.
Canalizo, L. 1 *s* 668 West End ave.
Cane, M. H. 1 *l* 62 E. 80
Canfield, Miss D. F. *ph* 501 W. 113
Cannon, J. R. 2 *m* Irvington-on-Hudson, N. Y.
Cannon, W. A. *p* 552 W. 125
Canter, Miss S. sp *t* 164 W. 79
Cantle, H. C. 2 *m* 354 W. 24
Canto, Y. H. 1 *m* 314 W. 58
Capen, E. W. *pl* 428 W. 57
Capito, G. B. 2 *m* 318 W. 57
Carbo, L. A. 1 *s* 1161 Amsterdam ave.
Cardozo, E. A. 2 *l* 45 E. 65
Cardozo, M. H., Jr. 4 *c* 45 E. 65
Carey, Miss K. W. 3 *t* 408 W. 115
Carey, R. W. 3 *c* 205 W. 85
Carhart, E. M. 4 *b* Fiske Hall, Barnard
Carleton, R. A. W. 1 *s* Edgewater, N. J.
Carlin, W. J. 1 *l* Shore road, near 92d st., Bklyn
Carll, L. A. 3 *b* Whitestone, N. Y.
Carlsson, C. P. 1 *c* 260 William
Carman, C. E. A. 4 *b* 5 W. 82
Carpender, J. N., Jr. 3 *m* 352 W. 58
Carpenter, Miss J. B. gr *t* Fiske Hall, Barnard
Carpenter, Miss L. J. 1 *t* 309 King, Port Chester
Carpenter, W. S. 1 *c* 417 W. 114
Carr, H. L. 3 *c* 4 State
Carrère, J. M. sp *s* 66 Maiden lane
Carrington, J. B. sp *c* 44 W. 44
Carter, J. P. 3 *c* 130 E. 24
Carter, Miss M. H. *pl* Fiske Hall, Barnard
Carter, N. McL. 2 *m* 126 W. 58
Carter, R. W. 1 *m* 60 W. 58
Cary, J. W. sp *s* 358 W. 123
Casamajor, Miss A. *ph* 372 Greene ave., Bklyn
Casamajor, L. 2 *c* 372 Greene ave., Bklyn
Case, W. L. sp *s* 115 W. 49
Catlin, H. E. 4 *b* Bloomfield, N. J.
Cattell, Miss H. M. *p* Peekskill, N. Y.
Cazin, Miss A. 3 *t* 1108 Bloomfield, Hoboken, N. J.
Chace, A. F. 2 *m* 318 W. 57
Chamberlain, Miss E. *ph* 33 E. 75
Chamberlain, R. 4 *c* 372 Central ave., Jersey City
Champion, J. C. 1 *c* 1161 Amsterdam ave.
Chancellor, C. H. 3 *m* 720 St. Nicholas ave.
Chandler, H. K. 1 *s* 38 E. 10
Chandler, T. E. sp *m* 216 E. 15
Chandor, Miss V. L. *pl* 202 E. 9, Plainfield, N. J.
Chapin, E. C. 3 *b* Mt. Vernon, N. Y.
Chapin, Miss N. P. sp *t* 1161 Amsterdam ave.
Chapman, J. E. gr *s* 554 W. 125
Chapman, R. B. 1 *l* 520 W. 123
Charlton, H. R. 4 *m* Mt. Vernon, N. Y.
Chase, J. H. *pl* 41 E. 69
Cheesman, F. P. 2 *b* 171 W. 95
Cherry, T. H. 1 *m* 237 W. 123
Chessman, F. N. 1 *m* 129 W. 64
Chibas, L. S. F. 3 *m* 400 W. 57, care Miss Bachode
Chickering, E. C. *ph* 73 Herriman ave., Jamaica, N. Y.
Choate, Miss M. F. *pl* Greenwich, Conn.
Christmann, A., Jr. 3 *l* 113 Graham ave., Bklyn
Church, E. C. 1 *s* 4 E. 130
Cimiotti, W. F. 4 *m* 104 W. 87
Claffy, M. L. C. 1 *b* 27 Tompkins pl., Bklyn
Clark, Miss A. R. 2 *t* Cresskill, N. J.
Clark, A. T. S. gr *t* 466 W. 149
Clark, B. F., Jr. 3 *s* 2611 Bway
Clark, C. D. 4 *s* 410 W. 115
Clark, Miss E. J. *ph* Fiske Hall, Barnard

Clark, F. B. 2 *s* 249 W. 54
Clark, F. M. 3 *c* 524 W. 123
Clark, G. H. 2 *b* 258 W. 78
Clark, H., Jr. *pl* 318 W. 82
Clark, J. A. sp *b* 31 W. 69
Clark, Miss L. 3 *t* 528 W. 123
Clark, M. E. 3 *b* 463 Manhattan ave.
Clark, Miss M. P. 2 *t* 522 W. 123
Clark, W. E. *pl* 314 W. 113
Clark, W. F. *pl* 41 E. 69
Clark, W. I., Jr. 1 *m* 127 E. 30
Clark, W. L. 4 *s* 37 W. 84
Clarke, H. J. B. 3 *s* 19 E. 9
Clarke, R. W. M. 3 *s* 19 E. 9
Clay, T. A. 2 *m* 30 Sheriden ave., Paterson, N. J.
Clearman, Miss B. W. 1 *t* 174 W. 87
Cleary, Miss M. G. sp *t* 228 E. 122
Cleghorn, C. D. 1 *m*
Close, Miss E. 4 *t* 74 W. 124
Close, J. A. 3 *s* 554 W. 125
Closs, Miss R. E. 2 *t* 417 W. 118
Clough, C. L. sp *b* 314 W. 23
Clowes, Miss H. C. gr *t* Hempstead, N. Y.
Cluthe, H. 1 *s* 221 Parsons ave., Flushing, N. Y.
Cocks, G. H. 2 *m* 318 W. 57
Cocks, O. G. *pl* 41 E. 69
Coddington, E. C. 3 *b* 38 Hamilton ave., Passaic, N. J.
Coddington, E. M. *p* 24 W. 58
Coe, J. L., Jr. 2 *l* Bay Shore, N. Y.
Coe, Miss M. E. *ph* 42 W. 52
Coelos, J. A. 1 *s* 153 E. 76
Coerr, F. D. H. 1 *m* 345 W. 57
Coffee, R. I. *ph* 736 Lexington ave.
Coffin, R. R. 1 *c* 258 W. 72
Coggeshall, A. 2 *s* 311 Prospect, S. Orange, N. J.
Coggeshall, E. W. 311 Prospect, S. Orange, N. J.
Cohen, F. 2 *m* 61 E. 83
Cohen, H. L. 2 *b* 5 W. 91
Cohen, I. 3 *l* 204 E. 72
Cohen, M. 3 *l* 310 W. 33
Cohen, R. F. 1 *b* Fiske Hall, Barnard
Cohn, A. E. 1 *m* 64 E. 66
Cohn, H. 4 *m* 137 W. 63
Cohn, I. 3 *m* 154 Henry
Colburn, Miss M. B. 4 *t* 75 W. 92
Cole, Miss B. L. 4 *t* Inwood
Cole, R. 1 *l* 719 St. Nicholas ave.
Cole, W. F. 1 *s* 100 William
Coles, Miss A. B. 4 *t* 74 W. 124
Colie, D. 2 *c* 367 Manhattan ave.
Colie, E. M., Jr. 2 *c* 614 W. 113
Colles, Miss J. N. *p* 101 Park ave.
Collins, W. M. sp *c* 330 W. 108
Collman, A. A. A. 2 *b* Pelham Manor, N. Y.
Colman, J. M. 4 *s* 2686 Bway
Colt, M. 4 *s* 12 E. 11
Colt, M. E. S. 1 *b* Fiske Hall, Barnard
Colton, E. A. 2 *m* 111 W. 62
Colton, H. E. 3 *t* 161 Congress, Bklyn
Colwell, L. M. 4 *s* 365 W. 27
Comegys, Miss G. 4 *t* 37 Morningside ave.
Comey, J. W. 3 *l* 52 W. 54
Comings, Miss J. H. sp *t* 74 W. 124
Commiskey, L. J. J. 1 *m* 155 6th ave., Bklyn
Compton, M. G. 1 *b* 581 Carlton ave., Bklyn
Comstock, W. P. 2 *c* 460 W. 150
Conant, F. R. *pl* 41 E. 69
Conant, Miss M. P. *ph* 419 W. 118
Condit, J. D. 4 *m* 363 W. 56
Conger, H. R. 2 *l* 520 W. 123
Conklin, D. B. 3 *m* 165 W. 77
Conklin, R. S. 2 *l* 363 W. 123
Connell, G. S. *ph* 227 W. 70
Connelly, W. H. 1 *s* 331 W. 86
Connolly, M. E. 2 *l* Corona, N. Y.
Constant, C. L., Jr. 2 *s* 2143 7th ave.
Cook, C. C. 4 *b* 618 S. Bway., Yonkers, N. Y.
Cook, E. 1 *m* 135 E. 37
Cook, Miss E. C. *ph* 153 E. 62
Cook, T. F. 1 *s* 154 E. 37
Cooke, A. S. 4 *m* 407 W. 57
Cooke, R. A. 1 *m* 139 W. 61
Cookson, J. S. 1 *s* Suffern, N. Y.
Cooper, E. M. 2 *s* 57 Convent ave.
Cooper, I. M. 4 *b* 520 W. 123
Cooper, J. H. W. *pl* 345 Clinton ave., Bklyn
Cordley, Miss A. M. *pl* Glen Ridge, N. J.
Corey, A. F. sp *b* Fiske Hall, Barnard
Cornell, I. H. 2 *s* 29 E. 37
Cornell, R. T. 4 *s* 67 W. 83
Corning, W. B. *pl* 403 Lenox ave.
Cornman, L. R. 2 *m* Ft. Wood, Bedloe's Island, N. Y.
Corrigan, H. J. C. 3 *m* Providence, R. I.
Corrigan, J. E. 3 *l* 226 W. 104
Corson, Miss G. E. 4 *t* 417 W. 118
Cortright, C. B. 3 *m* 158 Plane, Newark, N. J.
Cosgrove, J. J. 2 *m* 424 W. 57
Cottrell, J. B. gr *t* 663 Prospect pl., Bklyn
Coultas, A. B. 3 *m* 141 W. 63

Couzens, J. C. 2 *s* 604 W. 114
Covert, Miss A. F. 3 *t*
56th st. and 8th ave.
Covert, J. B. 3 *m* care Dr. R. W.
Eastman, 140 W. 76
Cowan, A. 1 *m* 36 Grove
Cowen, H. G. 3 *c* 130 E. 47
Cowing, P. F. 3 *s* 138 E. 78
Cowles, H. C., Jr. 2 *m* 229 W. 23
Cox, H. N. 1 *s* 683 Madison, Bklyn
Coykendall, F. 3 *s*
Hotel Marie Antoinette
Cragin, E. S. 1 *b* 15 E. 8
Craig, C. L. 1 *l*
Craig, H. A. 1 *m*
New Germantown, N. J.
Cram, G. E. 4 *m* 318 W. 57
Cram, W. F. 1 *l* 26 W. 30
Cramp, W. C. 1 *m* Hamilton, N. Y.
Crandall, S. B. *pl*
1268 Amsterdam ave.
Crane, Miss E. E. sp *t*
338 Amity, Flushing, N. Y.
Crawford, Miss E. sp *t* 332 E. 43
Creden, E. L. 4 *m* 232 E. 18
Cregier, A. M. 4 *s* 419 W. 118
Crissey, C. P. 3 *s* 134 W. 79
Crocker, G. A., Jr. 2 *s* 5 W. 49
Cromwell, M. R. sp *b* 5 W. 56
Cromwell, R. H. 3 *s* 343 W. 121
Cronin, E. J. 1 *m* 431 W. 57
Crooker, F. F. sp *t* 50 W. 126
Crosby, H. B., Jr. 3 *s*
1161 Amsterdam ave.
Crosby, Miss M. sp *t* Brewster, N. Y.
Cross, J. W. 1 *s* 6 Washington sq.
Crowell, J. W. 2 *c*
188 Franklin pl., Flushing, N. Y.
Crudden, F. sp *m* 26 Dominick
Cruger, J. 1 *s* 408 W. 115
Cruikshank, Miss L. S. 2 *t* 419 W. 118
Cruser, F. Van D. 2 *s*
195 Clinton, Bklyn
Cummings, F. A. *ph* 412 W. 115
Cummings, Miss J. H. sp *t* 74 W. 124
Cunningham, C. T. sp *b* 106 W. 61
Cunningham, J. A. 4 *m* 108 E. 12
Curlett, A. E. 1 *s*
Curran, J. D. 4 *m* 119 W. 64
Curran, P. J. 4 *m*
Curry, M. 2 *s* New Brighton, N. Y.
Curtis, B. 2 *l* 33 W. 69
Curtis, B. R. 2 *l* 30 E. 64
Curtis, E. D. 3 *l* 9 E. 54
Curtis, H. S. 1 *l* 417 W. 114
Curtis, S. T. 1 *b* 421 W. 117
Curtiss, Miss E. 1 *t* 218 W. 123
Curtiss, Miss M. L. B. 3 *t* 419 W. 118
Cushing, C. E. 1 *l* 7 E. 43
Cushing, H. A. 3 *l* 106 W. 105
Cushing, Miss M. G. *ph*
Waldorf-Astoria
Cushing, R. B. 2 *l* 227 W. 122
Cussler, E. 1 *m*
105 Grand, Jersey City
Cutter, G. P. 3 *s* 2 W. 94
Cutting, H. E. 4 *b* 12 Hawthorne ave.,
Yonkers, N. Y.

Daignault, E. J. 1 *l* 521 W. 123
Dalton, Miss E. sp *t*
606 Bramhall ave., Jersey City
Dalton, W. A. 3 *m* 1057 Jennings
Daly, W. A. 1 *s*
"The Livingston," 66th & Bway
Dammes, T. W. *pl* Union Theo. Sem.
Dana, C. A. 2 *c* 55 W. 51
Danforth, E. 3 *m* Hotel Endicott
Daniels, H. P. 3 *s* 73 E. 127
Danton, G. H. 3 *c* Lyndhurst, N. J.
Danziger, J. L. 3 *s* 2549 8th ave.
Darlington, Miss F. *ph* 457 W. 21
Darlington, L. 1 *l* 530 W. 123
Darrach, W. 4 *m* 305 W. 80
Dattelbaum, M. J. 1 *m*
362 Sackman, Bklyn
Davenport, Miss F. G. *pl*
7 Middagh, Bklyn
David, F. H. 2 *m* 33 W. 126
Davidson, E. M. 1 *l*
Huntington, L. I.
Davidson, Miss F. A. 1 *t*
Dobbs Ferry, N. Y.
Davidson, I. 1 *m* 79 W. 118
Davidson, I. *ph* 57 E. 117
Davis, A. 2 *c* 133 Monroe, Bklyn
Davis, A. W. 2 *m* 101 W. 54
Davis, J. 1 *l* 530 W. 123
Davis, J. W. 3 *m* 147 W. 64
Davis, L. P. 1 *l* 419 W. 118
Davis, Miss M. C. 3 *t* 227 E. 18
Davison, Miss E. S. *pl*
109 Joralemon, Bklyn
Davison, M. L. sp *b* 53 W. 47
Dawson, Miss A. B. gr *t* 235 Hooper,
Bklyn
Day, A. W. 4 *m* 140 52, Bklyn
Day, S. M. 1 *s* 18 W. 19
Deal, F. A. 1 *m* 664 Lexington ave.
Dean, J. 1 *l* Freeport, L. I.
Dean, M. B. 1 *l* 121 W. 114
Dean, P. R. gr *t* 60 W. 101
De Baun, R. 2 *m* 114 W. 61
de Beaumont, V. E. 4 *c*
723 Columbus ave.
de Cardênas, J. 1 *s* 165 W. 64
de Castro, R., Jr. 4 *m* 116 W. 14
Dederer, P. H. 4 *b* 608 W. 113

le Forest, E. L. 2 *s* 1 W. 72
Degen, Miss C. A. 2 *t* 24 3, Clifton Park, N. J.
De Graffenried, T. P. 1 *l* 526 W. 125
de Guise, Miss E. E. 1 *t* 204 W. 88
De Hart, G. L. 3 *b* 99 Mercer, Jersey City, N. J.
de Jarnette, G. H. *ph* 78 W. 94
Delaney, Miss H. A. 3 *t* 143 W. 136
Delgado, F. P. 3 *c* 338 W. 57
De Long, F. S. 4 *m* 47 W. 49
Demarest, W. G. 1 *s* 202 W. 130
Demeritt, H. S. 1 *s* New Canaan, Conn.
de Mille, W. C. *ph* 3 W. 98
Deming, D. B. 4 *m* 318 W. 57
Dempwolf, C. H., Jr. 2 *s* 412 W. 115
Denison, G., H. 1 *s* 91 Division ave., Bklyn
Dennis, H. R. 2 *l* 526 W. 114
Denton, M. 1 *b* 271 E. 32, Paterson, N. J.
De Nyse, R. 1 *l* 306 South 5, Bklyn
Depew, C. M., Jr. 4 *c* 27 W. 54
Derr, Miss A. L. *ph* 428 W. 124
Desky, H. I. 1 *l* 300 W. 119
de Somoskeoy, V. H. 1 *m*
Dettman, C. A. 1 *m* 151 W. 61
Deutsch, S. 3 *m* 534 E. 87
Devlin, M. sp *t* Maspeth, N. Y.
De Witt, G. G. 2 *s* 133 W. 78
Deyo, L. 1 *c* 9 E. 49
Deyo, R. L. sp *b* 51 W. 106
De Yoe, E. A. 1 *l* Ramsey, N. J.
Diamant, S. 3 *s* 245 E. 118
Dias, J. L. 2 *m* 127 W. 63
Dickerson, Miss E. sp *t* 363 Washington ave., Bklyn
Dickie, A. E. 3 *s* 566 Macon, Bklyn
Dickinan, J. W. *pl* 85 W. 118
Dieffenbach, R. H. 1 *m* 222 S. Orange ave., Newark, N. J.
Diller, A. sp *b* 40 W. 72
Dillingham, P. S. 3 *c* 419 W. 118
Dillon, C. J. 3 *m* 118 W. 47
Dillon, R. sp *s* 120 W. 89
Dingman, J. C. 1 *m* Spring Valley, N. Y.
Dingman, T. A. 1 *m* Spring Valley, N. Y.
Dionne, G. A. L. *ph* 435 Madison ave.
Dippel, J. P. 1 *l* West New York, N. J.
Dittenhoefer, L. F. 2 *s* 1026 Park ave.
Dixon, J. 4 *s* Flushing, N. Y.
Dixon, S. H. *ph* 108 Oak, Yonkers, N. Y.
Dodd, L. H. gr *t* 3133 Bway

Dodd, Miss M. G. 2 *t* 417 W. 118
Dodge, M. H. 2 *c* 232 Madison ave.
Doherty, C. J. 3 *l* 735 Lexington ave.
Doherty, Miss E. F. sp *t* 226 E. 78
Doherty, G. 1 *l* 735 Lexington ave.
Dollard, H. L. 3 *m* Oyster Bay, N.Y.
Dolphin, B. E. 1 *m* 320 W. 58
Dominick, W. F. 4 *s* 35 E. 57
Donald, R. S. 3 *b* 170 W. 121
Donnellan, G. L. 4 *c* 883 6th ave.
Donohue, F. B. 4 *m* 11 W. 32
Donohue, L. T. 1 *m* 11 W. 32
Doolittle, W. F. 3 *m* 135 W. 64
Doon, J. H. 3 *m* 424 W. 57
Doran, C. E. 2 *m* 127 W. 63
Dorman, A. R. 2 *s* 318 W. 113
Doty, K. S. 1 *b* 553 W. 141
Doud, C. H. 4 *s* 218 W. 123
Dougherty, R. E. 4 *s* 244 W. 20
Doughty, E. C. sp *s* 135 Madison ave.
Doughty, W. H., Jr. 3 *l* 135 Madison ave.
Dowd, Miss E. M. sp *t* 613 Academy, Astoria, L. I.
Downer, C. A. *ph* 37 7th ave.
Doyle, J. B. 1 *l* 521 W. 123
Dressler, W. B. 4 *c* 136 W. 103
Drucker, A. P. 4 *c* 736 Lexington ave.
Dryfoos, J. A. sp *c* 4 E. 80
du Bois, Miss E. H. *ph* 251 W. 127
Du Bois, Miss E. R. sp *t* Douglaston, N. Y.
Du Bois, F. E. 2 *m* 303 Lexington ave.
Du Bois, Miss M. sp *t* 47 W. 76
Du Bois, S. E. sp *t* 2066 5th ave.
Du Bois, W. C. 4 *s* 35 W. 34, Bayonne, N. J.
Duckett, W. J. 1 *m* 147 W. 64
Duckworth, A. W. 2 *l* 147 Berkeley pl., Bklyn
Duden, F. H. 3 *c* Bronxville, N. Y.
Duden, H., Jr. 4 *c* Bronxville, N. Y.
Duden, W. 2 *l* Bronxville, N. Y.
Dudley, B. W. 1 *m* Lexington, Ky.
Dudley, G. B. 1 *m* 177 W. 63
Dudley, P. sp *c* 137 W. 103
Dudley, W. L. sp *m* 56 W. 105
Duell, W. C. 1 *c* 61 Washington, Tarrytown, N. Y.
Duffey, Miss L. R. 2 *t* 417 W. 118
Dufourcq, R. G. 1 *s* 62 W. 84
Dugro, F. A. 1 *m* 309 E. 6
Dulon, Miss M. R. 4 *t* 646 W. 158
Duncan, G. E. 3 *l* 18 E. 40
Duncan, O. B. 2 *m* 202 Carroll, Paterson, N. J.
Duncombe, F. H. 1 *s* 45 1st ave., Mt. Vernon, N. Y.
Dunning, S. L. sp *b* 138 W. 109

Dunseith, J. G. 4 *m* 354 W. 42
Durant, A. L. 1 *b* 305 W. 86
Durant, E. 3 *b* 305 W. 86
Durham, K. 4 *c* 404 W. 145
Durham, R. 1 *m* 404 W. 145
Dutcher, Miss M. 4 *t* 525 Manhattan ave.
Du Vivier, J. 2 *l* 441 W. 21
Dwyer, J. J. 2 *l* 182 E. 111
Dyer, A. L. sp *b* 86 Lefferts pl., Bklyn
Dyrsen, H. H. 2 *c* 131 W. 87

Eagleton, W. P. sp *m* 15 Lombardy, Newark, N. J.
Eakin, A. 1 *s* Englewood, N. J.
Earle, R. 3 *b* 530 W. 123
Earle, V. de La M. 2 *c* Earle Cliff, 160th st. and Edgecombe ave.
Earle, W. P. S. 1 *c* "Earle Cliff," Washington Hts.
Eastman, Miss E. *ph* 16 W. 85
Eastman, Mrs. M. L. 3 *t* 1086 Dean, Bklyn
Eastmond, C. 4 *c* 199 Madison, Bklyn
Easton, W. O. *pl* 412 W. 115
Eaton, M. L. 4 *b* Nyack, N. Y.
Ebling, L. A. 1 *s* 935 Prospect ave.
Eccles, D. C. *p* 191 Dean, Bklyn
Edelstein, I. 1 *l* 185 Henry
Edwards, E. J., Jr. 4 *c* Murray Hill Hotel
Edwards, F. E. 1 *s* 129 Lexington ave.
Edwards, J. A. 2 *l* 144 W. 58
Egbert, Miss K. W. gr *t* Rosebank, N. Y.
Eggleston, Miss C. *p* 43 Central ave., New Brighton
Egleston, J. D. 1 *b* Fiske Hall, Barnard
Egner, A. F. 2 *c* 1015 Broad, Newark, N. J.
Ehrmann, A. 2 *c* 11 W. 58
Eichhorn, H. 1 *m* 341 E. 3
Einstein, M. J. 1 *b* 44 W. 53
Eiselen, F. C. *ph* Passaic, N. J.
Eisenhardt, Miss C. 3 *t* 1270 Amsterdam ave.
Eldert, H. C. 2 *l* 362 W. 121
Elgar, H. B. 1 *c* 275 W. 132
Elias, H. H. 2 *c* 18 W. 71
Elias, L. W. 2 *m* 195 Lenox ave.
Elleau, A. L. 1 *b* 6 Stratford pl., Newark, N. J.
Elliman, K. B. 4 *c* 417 W. 118
Elliman, M. G. 3 *b* 24 W. 61
Elliott, E. H. 4 *t* 356 7th ave., Bklyn
Ellis, G. A. 1 *c* 133 W. 113
Ellis, R. P. sp *m* 72 W. 88
Elmore, W. B. 2 *m* 128 W. 61
Elstee, O. D. 1 *l* Gloversville, N. Y.
Elsworth, H. J. sp *c* 277 Bway
Elting, H. S. 1 *b* 237 N. Bway, Yonkers, N. Y.
Elting, M. 4 *b* 2049 7th ave.
Emanuel, A. 1 *s* 531 Manhattan ave.
Embury, L. B. 1 *b* Englewood, N. J.
Emerson, E. H. 3 *s* 505 W. 112
Emerson, Miss M. J. *ph* 410 W. 115
Emery, L. 1 *s* 35 Mt. Morris Park, West
Engel, W. F. 4 *m* 10 Stuyvesant ave., Bklyn
Engelke, C. 3 *m* 147 W. 64
English, A. A. 4 *c* 107 W. 114
English, P. A. 4 *c* 107 W. 114
English, P. V. 1 *s* 126 W. 66
Enright, E. M. 1 *b* Fiske Hall, Barnard
Ensign, M. 1 *b* 28 W. 9
Epler, D. A. 2 *m* 136 W. 64
Erdal, O. W. 4 *s* 369 W. 120
Erdman, S. 3 *m* 251 W. 55
Erdwurm, F. 2 *m* 108 Orient ave., Jersey City
Ernst, A. O. 4 *c* 226 W. 113
Ernst, B. M. L. 2 *l* 233 W. 113
Erskine, H. 1 *b* 340 W. 85
Erskine, J. *ph* 340 W. 85
Erskine, J. P. 2 *m* 318 W. 57
Erwin, Miss K. A. sp *t* 127 W. 106
Esser, J. H. 4 *c* 352 W. 123
Estill, R. J. 3 *m* 129 W. 61
Ettlinger, J. sp *b* 40 E. 73
Evans, A. P. 2 *m* 755 Quincy, Bklyn
Evans, J. H. 3 *m* 100 W. 61
Evans, W. A. D. 2 *s* 147 W. 130
Everett, S. H., Jr. 2 *s* 490 Hancock, Bklyn
Everts, C. P. 3 *s* 410 W. 115
Eyanson, F. E. 3 *l* 304 W. 115
Eyer, G. sp *s* 255 W. 122
Eytinge, E. O. J. 1 *m* 10 W. 65

Faber, J. P. 2 *s* 315 E. 58
Fackenthal, J. D. 1 *l* 93 Rodney, Bklyn
Faile, K. C. 3 *c* 53 W. 49
Fairchild, C. W. 2 *m* Tarrytown, N. Y.
Fairchild, Miss H. A. 3 *t* 312 E. 9
Falck, A. D. 2 *l* 520 W. 123
Falconer, B. McL. 4 *c* 8 E. 62
Falk, K. G. 4 *s* 63 E. 74
Falk, M. 1 *s* 24 E. 81
Falk, M. A. 2 *c* 33 E. 67
Fall, F. A. *ph* 358 W. 118
Farish, G. E. 3 *s* 149 Manhattan ave.

Farley, Miss M. L. sp *t* 751 E. 143
Farnham, C. H. sp *c* 532 W. 124
Farnham, W. S. 3 *l* 308 W. 115
Farnum, Miss M. L. sp *t* 150 Pike, Port Jervis, N. Y.
Farquhar, Miss A. M. 3 *t* 84 W. 120
Farrar, P. C. *ph* 61 W. 104
Farrell, P. L. 2 *l* 536 Carlton ave., Bklyn
Farrington, F. E. gr *t* 329 W. 83
Fassett, B. S. 2 *m* Elmira, N. Y.
Fassett, E. C. 1 *m* 325 W. 51
Fassett, L. 1 *l* 82 Morningside ave.
Faucett, S. T. 2 *m* 121 W. 51
Fay, Miss M. sp *t* Hillside ave., Corona, N. Y.
Feely, W. H. P. 1 *m* 296 Lorimer, Bklyn
Fenollosa, E. F. *ph* 419 W. 118
Fernald, R. H. gr *s* 296 Manhattan ave.
Ferris, Miss M. D. *t* 116 W. 128
Ferry, Miss A. M. gr *t* 253 S. 9th ave., Mt. Vernon, N. Y.
Fette, Miss E. W. 4 *t* 322 W. 113
Feust, A. 3 *s* 718 E. 138
Fewsmith, J. L. 3 *m* 47 Central ave., Newark, N. J.
Fichter, L. 1 *m* 306 E. 119
Fielder, Miss L. 4 *t* 74 W. 124
Fielding, F. G. sp *m* Glens Falls, N. Y.
Fies, M. H. 1 *s* 2094 5th ave.
Finch, L. H. 2 *m* 556 Halsey, Bklyn
Fink, C. G. 2 *c* 133 W. 85
Finkelstein, H. 1 *m* 72 S. Washington sq.
Finlay, G. I. *p* 134 Flatbush ave., Bklyn
Finn, F. A. 2 *m* 157 Danforth ave., Jersey City
Finnigan, E. sp *b* 151 W. 81
Finnigan, J. J. *ph* 140 W. 63
Fischer, H. M. 1 *b* 129 W. 70
Fischer, S. M. 3 *l* 1184 Lexington ave.
Fish, Miss L. H. gr *t* 237 E. 104
Fishel, Miss L. H. *ph* 122 W. 97
Fisher, J. R. 1 *c* 117 Washington, Hoboken, N. J.
Fisher, M. H. 4 *b* 149 2d ave., Mt. Vernon, N. Y.
Fisher, M. L. 1 *c* 116 E. 72
Fisk, C. E. 3 *c* 17 Bentley ave., Jersey City
Fitch, E. H. 2 *b* 273 W. 84
Fitch, J. K. 3 *c* 530 W. 123
Flaks, A. 1 *m* 120 Monroe
Flatto, I. 1 *m* 141 Monroe
Fleming, W. L. *pl* 533 Manhattan ave.
Fleming, W. S. sp *c* Scarsdale, N. Y.
Fletcher, F. B. sp *b* "The Lorraine," 5th ave. and 45
Fletcher, N. De L. L. 3 *m* 180 E. 93
Flint, Miss F. E. H. *ph* 510 W. 143
Flint, R. P. sp *s* 101 W. 73
Flood, G. J. B. 4 *m* 352 W. 55
Floyd, C. W. 3 *l* 110 E. 16
Fluhrer, Miss H. P. *ph* Murray Hill Hotel
Flynn, D. J. 1 *m* 345 W. 51
Focardi, P. L. 4 *s* 1284 Columbus ave., care Mrs. Fitzgerald
Foehrenbach, H. P. 4 *m* 2189 Bway
Foise, J. F. 2 *l* 147 E. 60
Foley, J. P. sp *c* 106 E. 55
Foote, Miss F. E. *ph*
Foote, F. S., Jr. 1 *s* 67 Myrtle ave., Montclair, N. J.
Foote, L. H. 1 *c* 235 W. 123
Forbes, C. S. 4 *c* 133 E. 29
Forbes, F. B. 1 *c* 8 W. 56
Ford, Miss F. E. 3 *t* 72 W. 124
Ford, G. S. *pl* 416 W. 118
Ford, H. E. 3 *c* 64 Davis ave., W. New Brighton
Ford, W. H. 2 *s* 5 Mt. Morris Pk., W.
Forrest, Miss G. 3 *t* 884 Putnam ave., Bklyn
Forrest, N. S. 1 *b* 828 St. Nicholas ave.
Forsch, A. 4 *c* 31 W. 86
Forst, L. 2 *l* 250 W. 131
Fort, J. I. 2 *c* 33 S. 10, Newark, N. J.
Foshay, J. R. 2 *m* 363 W. 56
Foster, Miss C. D. gr *t* 378 Lewis ave., Bklyn
Foster, Miss E. E. 4 *t* 522 W. 123
Foster, G. K. 4 *c* 3136 Bway
Foster, J. H. 1 *l* 223 E. 13
Fountain, C. B. 1 *b* Fiske Hall, Barnard
Fountain, C. H. 1 *c* 1700 Washington ave., Tremont, N. Y.
Fowler, L. H. 3 *s* 254 W. 98
Fowler, S. R. 3 *m* 230 W. 75
Fowles, G. M. *pl* 2190 7th ave.
Fox, N. B. 2 *l* 419 W. 118
Fox, R. C. 3 *l* 174 W. 126
Franca, M. 2 *m* 116 W. 14
France, A. L. sp *c* 1855 7th ave.
Frank, E. 2 *s* 209 W. 127
Frank, H. 2 *s* 378 Vanderbilt ave., Bklyn
Frank, J. S. 2 *l* 308 W. 90
Frank, M. L. 4 *c* 48 E. 80
Frank, W. 1 *c* 209 W. 127

Frank, W. P. 2 *l* 17 E. 61
Frankel, E., Jr. 1 *m* 217 E. 17
Frankenthaler, A. 1 *l* 11 E. 87
Franklin, L. 2 *m* 511 Jersey ave., Jersey City
Fraser, A. J. 1 *s* 146th st. and Gerard ave.
Frazer, C. R. 2 *l* 419 W. 118
Frazer, H. T. 4 *m* 129 W. 61
Frazier, M. L. *pl* 254 6th ave.
Frechtling, H. P. 2 *l* 362 W. 121
Fredericks, A. 3 *s* 220 E. 80
Freed, Miss R. 3 *t* 1637 Madison ave.
Freeman, E. D. 1 *l* 459 W. 144
Freeman, J. V., Jr. 1 *m* Sewaren, N. J.
Freund, H. P. 3 *s* 796 Lexington ave.
Frey, D. I. 1 *m* 38 Eldridge
Fried, E. S. 1 *c* 47 W. 87
Fried, G. A. 2 *m* 47 W. 87
Friedenberg, A. M. 1 *l* 186 W. 135
Friedman, Miss E. 3 *t* 148 W. 94
Friedman, H. J. 2 *m* 261 E. 4
Friedmann, C. F. sp *b* 109 E. 78
Frink, C. A. 3 *m* 129 W. 61
Frohne, H. W. 2 *s* 2924 Valentine ave., Bronx
Frost, Miss L. R. 4 *t* 26 W. 50
Frothingham, M. K. 1 *b* 60 W. 68
Frucht, S. 1 *m* 63 Elizabeth
Fry, E. L. 2 *b* Bath Beach, N. Y.
Fuerst, S. M. sp *c* 208 W. 13
Fulda, C. 4 *m* 107 Kent, Bklyn
Fuller, C. 3 *l* 30 Washington sq., W.
Fuller, L. C. sp *c* 30 Washington sq.
Futter, L. N. sp *c* College Point, L. I.

Gabriel, C. J. 4 *m* 53 16th ave., Newark, N. J.
Gagan, T. F. 2 *l* Haverstraw, N. Y.
Gage, B. *pl* 55 W. 48
Gage, G. H. 2 *m* 127 W. 63
Gaige, R. C. 1 *c* 530 W. 123
Gain, J. C. 1 *m* Roosevelt Hospital
Galbraith, A. W. 2 *m* 115 E. 56
Gale, S. S. 4 *m* 306 W. 58
Gall, Miss M. D. sp *t* 69 Paterson ave., Paterson, N. J.
Gallegher, A. sp *b* The San Marino, W. 112
Gans, Miss D. *ph* Fiske Hall, Barnard
Ganter, C. R. 2 *l* Irvington-on-Hudson
Garcelon, A. B. sp *c* 416 W. 118, care Mrs. Burns
Garcelon, C. A., Jr. sp *s* 416 W. 118
Gard, R. C. sp *s* 1165 Amsterdam ave.
Gardiner, R. *pl* 370 W. 116
Gardiner, R. T. *pl* 370 W. 116
Gardner, Miss A. E. *ph* 419 W. 118
Garner, J. W. *pl* 600 W. 125
Garretson, W. Van P. 2 *m* 176 Clerk, Jersey City
Garrigan, G. P. 3 *m* 145 W. 61
Garritt, A. W. gr *t* 42 W. 133
Garrity, Miss A. R. gr *t* Jamaica, L. I.
Garside, C. Z. 2 *m* 112 Stone, Newark, N. J.
Garvin, W. C. 2 *m* 128 W. 61
Gaston, M. E. 3 *s* 441 Park ave.
Gates, M. E., Jr. 2 *l* 120 E. 65
Gaudineer, E. H. 1 *m* Maplewood, N. J.
Gausmann, Miss A. B. 4 *t* Leonia, N. J.
Gay, R. M. *ph* 552 Herkimer, Bklyn
Gearin, H. C. 1 *l* 752 West End ave.
Gee, W. E. sp *c* 100 Greenwich ave.
Geer, Miss E. E. 2 *t* 74 W. 124
Geer, E. T. 2 *c* 113 W. 11
Gelder, J. E. sp *s* 3132 Bway
Gellert, S. 1 *m* 629 E. 6
Georgi, H. W. 1 *m* 241 W. 54
Gerken, W. D. gr *t* 176 Ege ave., Jersey City, N. J.
Gerster, J. C. A. 3 *c* 34 E. 75
Gestefeld, D. H. 1 *c* Pelham, N. Y.
Gevin, W. McK., Jr. 1 *s* 208 W. 72
Geyer, H. C. 4 *m* 78 2
Ghiglione, A. J. 1 *m* Arrchar, N. Y.
Gibbs, J. P. 4 *m* 318 W. 57
Giddings, H. S. 1 *l* 150 W. 79
Giffen, S. D. 3 *m* 41 W. 64
Giffin, F. A. *p* 419 W. 118
Gilchrist, E. P. 3 *l* 128 W. 115
Gildersleeve, Miss V. C. *pl* 28 W. 48
Gillespie, D. H. M. 3 *m* 337 W. 57
Gillespie, L. L. 2 *l* 49 E. 53
Gillet, L. A. 4 *s* 32 W. 10
Gillette, C. 4 *m* 24 W. 40
Gillies, W. F. 1 *s* 555 W. 141
Gilmour, G. *ph* 41 E. 69
Ginzler, A. *ph* 405 E. Houston
Gissel, H. W., Jr. 1 *c* 235 Bway, Bklyn
Gladney, F. Y. 2 *l* Auburn, Mo.
Glanz, H. 1 *m* 74 Norfolk
Glasby, H. S. 2 *s* 14 Roseville ave., Newark, N. J.
Glasscheib, S. H. 2 *l* 124 E. 102
Glenn, G. 1 *l* 351 W. 114
Glenn, H. M. 1 *b* 351 W. 114
Glenney, W. L. 3 *c* 826 Hillside ave., Plainfield, N. J.
Glück, E. *ph* 116 W. 116
Goadby, Arthur, gr *t* 21 W. 35
Godwin, H. 3 *s* 125 W. 122
Godwin, V. 1 *s* 125 W. 122
Goepel, C. P. 3 *s* 2350 7th ave.

Goerwitz, W. 4 *s* 790 3d ave.
Goff, J. W., Jr. 2 *c* 319 W. 104
Goge, B. *pl* 55 W. 48
Golay, Miss J. *ph* 109 W. 77
Goldberg, J. M. 3 *m* 157 E. 72
Goldberg, S. 2 *l* 116 Stanton
Goldberger, N. S. 1 *c* 57 E. 60
Golden, P. N. 3 *s* Elizabeth, N. J.
Goldfrank, F. 2 *m* 20 E. 81
Goldfrank, W. S. 1 *c* 20 E. 81
Goldman, C. 4 *m* 1 Pike
Goldstone, K. H. 1 *m* 236 E. Bway
Gomez, Miss M. 1 *t* 323 W. 84
Goode, E. L. 4 *s* 314 Jefferson ave., Bklyn
Goodfriend, N. 3 *m* 333 E. 77
Goodhue, I. W. 3 *l* 156 W. 106
Goodman, F. V. 2 *c* 131 W. 103
Goodman, J. E. *ph* 64 W. 104
Goodman, M. 4 *s* 333 E. 4
Goodrich, Miss H. M. 3 *t* 525 W. 125
Goodrich, J. S. 2 *s* 119 W. 104
Goodridge, F. G. 4 *m* 250 5th ave.
Gookin, W. F. 2 *c* 127 W. 112
Göransson, F. *p* 526 W. 114
Gordon, G. A. *ph* 41 E. 69
Gordon, H. A. 2 *c* 48 W. 84
Gottlieb, H. N. 1 *l* 1161 Amsterdam ave.
Gottschalk, C. A. sp *b* 178 W. 81
Gould, G. C. 2 *m* 134 S. 6th ave., Mt. Vernon, N. Y.
Gould, J. H. 2 *l* 419 W. 118
Gould, L. A. 1 *m* 77 River, Danbury, Conn.
Gould, Miss N. J. gr *t* Bayonne, N. J.
Gower, Miss M. L. sp *t* 420 W. 124
Grace, W. H. 4 *c*
Graham, C. M. 1 *m* 407 W. 57
Graham, H. F. 1 *m* 121 W. 61
Graham, W. B. *pl* 153 W. 123
Grandin, E. B. 1 *s* 36 E. 58
Granger, E. A. 1 *b* 106 S. 1st ave., Mt. Vernon, N. Y.
Grant, H. A. 1 *s* Tarrytown, N. Y.
Grant, H. R. 4 *c* 323 W. 83
Grant, O. R. 3 *s* 2236 Southern Boulevard
Gravenhorst, P. G. 1 *c* 304 Carlton ave., Bklyn
Graves, Miss A. M. 2 *t* 3133 Bway
Graves, D. D. 2 *l* 521 W. 123
Graves, J. W. 2 *l* 22 St. Nicholas pl.
Gray, Miss A. L. *ph* 227 Bloomfield ave., Passaic, N. J.
Gray, C. 3 *s* 255 W. 126
Gray, H. D. *ph* 228 W. 49
Gray, J. 4 *c* 246 14, Bklyn
Gray, Miss L. C. 2 *t* Fort Plain, N. Y.
Gray, L. H. *ph* 53 2d ave., Newark, N. J.
Green, C. T. 1 *l* 41 W. 75
Green, G. G. 1 *s* 412 W. 115
Green, Miss J. sp *t* Woodside, N.Y.
Green, L. Z. 1 *l* 554 W. 125
Green, Miss M. W. gr *t* 202 Bway, West New Brighton, S. I.
Greenblatt, M. 2 *m* 1 E. 106
Greene, Miss E. 3 *t* 29 W. 99
Greene, P. L. 2 *s* 490 Vanderbilt ave., Bklyn
Greene, Van R. H. 1 *c* 49 W. 68
Greenleaf, J. C. sp *s* 116th st. and Riverside drive
Greenway, J. C. 1 *m* 317 W. 58
Gregory, W. S. 2 *m* 139 W. 67
Gregory, W. K. *p* 149 W. 12
Greif, J. 2 *m* 232 Rivington
Greil, G. 4 *m* 306 W. 58
Greiner, Miss K. A. sp *t* 509 W. 112, care of Wheeler
Gretsch, B. J. 4 *m* 334 E. 77
Grevatt, F. F. 2 *s* 291 Spring, W. Hoboken, N. J.
Grey, Miss E. W. sp *t* 32 Cambridge pl., Bklyn
Griffin, G. F. sp *s* 419 W. 118
Griffin, Miss M. T. sp *t* 47 Church, White Plains, N. Y.
Griffin, W. H. 2 *l* 156 Kent, Bklyn
Griffing, Mrs. A. V. W. sp *b* 645 Madison ave.
Griffith, Miss M. 3 *t* 106 W. 90
Griffith, P. Le R. 2 *s* 25 W. 123
Griswold, Mrs. F. K. sp *t* 56 Morningside ave.
Groezinger, C. *pl* 41 E. 69
Groff, M. 2 *b* 21 Crescent ave., Jersey City, N. J.
Groser, Miss F. M. 1 *t* White Plains, N. Y.
Gross, A. 1 *l* 69 E. 113
Gross, H. 2 *m* 139 9th ave.
Grossmann, L. 4 *m* 209 E. 106
Grout, G. H. 3 *m* 318 W. 57
Grove, G. A. *ph* 524 W. 123
Gruening, C. E. 2 *b* 111 E. 23
Grün, Miss P. *ph* 1190 Lexington ave.
Grussner, A. 1 *m* 273 E. 3
Guinan, E. V. 2 *l* 163 E. 123
Gulick, H. de H. 4 *c* 1161 Amsterdam ave.
Guise, A. V. L. 1 *s* 204 W. 88
Gulbrandsen, S. 2 *s* 304 Kosciusko, Bklyn
Gulliver, F. D. 2 *m* 141 W. 64
Gumm, H. H. 4 *c* 207 W. 102
Gundersen, C. *p* 386 W. 125

Gunter, C. 4 *m* Montgomery, Ala.
Gunther, C. G. 2 *s*
1735 Cropsey ave., Bklyn
Gutherson, W. F. 1 *m*
684 E. 18, Paterson, N. J.
Gutman, A. S. 1 *c* 12 E. 80
Guyer, R. 2 *s* Columbia University

Haas, A. *ph* 539 W. 141
Haas, E. J. 1 *b* 7 E. 69
Haas, G. C. O. 3 *c* 64 7
Haas, H. J. 2 *c*
Haas, H. L. 3 *l* 483 West End ave.
Haas, J. L. sp *c*
Haas, L. 2 *l* 1827 7th ave.
Haber, J., Jr. 3 *l* 1161 Amsterdam ave.
Haber, W. J. 3 *m*
1161 Amsterdam ave.
Haberman, J. V. 3 *c* 248 E. 61
Haberstroh, A. 3 *m* 2523 11th ave.
Hahn, G. H. 3 *m* 122 Newton,
Newark, N. J.
Haight, L. H. 1 *s* 147 E. 37
Haines, H. W. 2 *s* 153 W. 121
Hale, G. D. 1 *m*
Hall, C. H. 3 *m* 256 Ryerson, Bklyn
Hall, H. R. 2 *s* 391 Manhattan ave.
Hall, J. W. gr *t* 470 W. 146
Hall, L. W. 3 *l* 151 W. 106
Hall, M. D. 3 *b* Mt. Vernon, N. Y.
Hall, W. C. sp *s*
572 Classon ave., Bklyn
Halligan, T. C. sp *t* 335 2d ave.
Hallowell, Miss H. 3 *t* 2137 7th ave.
Halsey, F. R. 4 *c* 957 Boulevard,
Astoria, N. Y.
Halsey, H. V. W. 3 *c* 957 Boulevard,
Astoria, N. Y.
Halstead, K. B. 3 *c* 528 W. 123
Hamburg, E. C. sp *t* 157 W. 118
Hamill, P. J. P. 1 *m*
141 Mercer, Jersey City, N. J.
Hamilton, A. 3 *m* 126 W. 84
Hamilton, C. M. *ph* 362 W. 123
Hamilton, E. 4 *b* 312 W. 122
Hamilton, E. C. 1 *l* 57 W. 69
Hamilton, E. W. 2 *l* 312 W. 122
Hamilton, S. W. 2 *m*
129 Lexington ave.
Hammer, J. 3 *m* 304 Rivington
Hammerslough, Miss C. *p*
1215 Madison ave.
Hammerslough, R. L. 1 *c*
1215 Madison ave.
Hammond, Miss A. B. 3 *t* 25 W. 130
Hanan, H. S. 1 *s* 8 W. 119
Hance, J. C. 1 *m* 424 W. 57
Hanemann, E. L. 1 *c* 159 W. 85
Hanemann, J. T. 3 *s* 159 W. 85
Hanks, L. T. 4 *b* 766 Madison ave.
Hannah, H. L. 3 *c* 218 W. 69
Hannon, A. L. 4 *s* 343 W. 121
Hannon, M. 1 *l* 206 W. 25
Hanson, H. O. 4 *c* 886 Jackson ave.
Hanson, Miss S. R. 1 *t* 215 2d ave.
Harcourt, A. sp *c* 331 W. 124
Hardenberg, D. S., Jr. 1 *m*
179 Pacific ave., Jersey City, N. J.
Hardenbergh, S. P. 1 *l* 171 W. 95
Hare, J. J. 2 *l* 218 W. 116
Harlow, Miss S. H. *p* 318 W. 56
Harp, H. J., Jr. 1 *m*
Harpending, S. A. 4 *c* 524 W. 123
Harper, J., Jr. 3 *c* 127 E. 28
Harper, R. McM. *p* 1310 Boston rd.
Harran, G. P. 2 *m* 1420 5th ave.
Harrigan, A. H. sp *m* 310 Park pl.,
Bklyn
Harrigan, J. gr *t* Stapleton, S. I.
Harriman, M. sp *b* 1 E. 55
Harrington, H. S. 2 *l* 369 W. 120
Harrington, T. H. *ph*
Westchester, N. Y.
Harris, B. S. 1 *m* Westfield, N. J.
Harris, H. H. 1 *c* 165 W. 91
Harris, H. S. 2 *c* 114 W. 116
Harrison, E. J. 2 *c* 258 Henry,
Bklyn
Harrison, Miss G. gr *t*
Rosebank, N. Y.
Harrison, J. C. 4 *c*
542 Hancock, Bklyn
Harrison, J. S. *ph* 521 W. 123
Harrison, M. F. 2 *b*
522 Lafayette ave., Bklyn
Harrison, R. C. 2 *c*
488 McDonough, Bklyn
Harrold, C. C. 3 *m* 306 W. 58
Hart, A. J. 1 *m* 431 W. 22
Hart, Miss B. P. sp *t* 301 W. 112
Hart, G. G. 3 *m* Larchmont, N. Y.
Hart, G. W. 4 *m* 89 Ross, Bklyn
Hartman, W. L. 4 *m* 705 E. 9
Hartshorn, W. M. 3 *m* 337 W. 57
Harwood, P. H. 2 *s* 353 W. 119
Hasking, A. P. 2 *m* 306 Varick,
Jersey City, N. J.
Hastings, Miss B. M. 3 *t*
Hatch, H. B. 1 *s* 419 W. 118
Hatch, W. P., Jr. 3 *s* 324 W. 57
Hatcher, C. P. 1 *l* 56 Lenox ave.
Haughawout, J. A. 1 *l* 235 W. 123
Hauschild, G. W. 1 *l* 116 Centre
Haussling, F. R. 4 *m* 28 W. 61
Haussling, G. 3 *l* 11 2d ave.,
Newark, N. J.
Haven, R. 1 *s* 587 Walton ave.
Haven, S. C. 4 *m* 251 W. 55

Havens, S. M. 2 *l* 521 W. 123
Havey, M. L. 4 *c* 340 E. 15
Haviland, D. sp *m* 234 E. 31
Haviland, H. F. 3 *s* 234 E. 31
Havill, O. A. 4 *s* 1284 Columbus ave.
Hawes, J. J. 1 *b* 13 Leland ave., New Rochelle, N. Y.
Hawk, S. D. *pl* 50 E. 70
Hawkesworth, J. 1 *s* 102 W. 80
Hawkins, E. 1 *l* 143 Madison ave.
Hawkins, N. L. 3 *m* Islip, L. I.
Hawks, E. M. 2 *m* Tarrytown, N. Y.
Hayden, J. P. 3 *l* 337 W. 76
Haydock, A. sp *b* 407 W. 123
Haydock, C. E. 4 *c* 341 E. 50
Hayes, C. H. 1 *c* 257 6th ave., Bklyn
Hayes, E. F. 2 *s* 318 E. 15
Haynes, R. S. 2 *m* 449 Greene ave., Bklyn
Hays, A. G. 3 *c* 264 W. 89
Hays, H. M. 3 *c* 264 W. 89
Hazay, M. 2 *m* 314 E. 3
Hazzard, Mrs. J. C. 3 *t* 1270 Amsterdam ave.
Heaton, W. C. 2 *c* New Paltz, N. Y.
Heck, C. M. 2 *s* 137 W. 103
Heck, W. H. *ph* 137 W. 103
Heimann, W. J. 4 *c* 123 W. 122
Helgeson, K. A. 2 *m*
Heller, C. 1 *s* 12 E. 77
Hellman, A. M. 3 *c* 15 E. 92
Helvie, R. S. 1 *l* 522 W. 123
Henderson, A. C. 2 *m* 104 W. 64
Henderson, Miss M. L. 3 *t* 417 W. 118
Henderson, N. sp *b* 27 E. 65
Hendrickson, C. Le R. 2 *c* 1161 Amsterdam ave.
Hendrickson, W. H. 2 *s* 162 W. 99
Henes, L. G. 2 *s* 128 E. 93
Hennen, W. D. 1 *m* New York Athletic Club, 59th st.
Hennesey, J. F. 2 *m* 236 W. 55
Henning, D. M. sp *m* 411 W. 57
Henriquez, R. A. sp *m* 1919 7th ave.
Henry, Miss M. Y. *ph* 7 Magnolia ave., Jersey City, N. J.
Hentschel, C., Jr. 2 *l* 771 Hart, Bklyn
Herbert, E. 3 *m* 151 W. 61
Herlitzka, L. 2 *m* 97½ 7
Herman, S. H. 3 *l* 54 E. 80
Heroy, J. H. 3 *c* 47 E. 66
Heroy, M. 4 *b* 47 E. 66
Herts, R. L. 1 *b* 153 W. 78
Herzfeld, E. G. sp *b* 147 W. 86
Herzig, A. J. 3 *m* 363 W. 118
Herzog, D. sp *b* 255 W. 127
Hess, A. F. 4 *m* 956 Madison ave.
Hess, Miss M. I. 3 *t* 152 Convent ave.
Heublein, A. C. 3 *m* 144 W. 65
Heuser, F. W. J. 4 *c* 154 Hewes, Bklyn
Hewitt, E. S. 4 *s* 182 Congress, Bklyn
Heyer, B. W. 3 *s* 463 Lexington ave.
Heyman, S. 2 *l* 148 Newark ave., Jersey City, N. J.
Hibler, G. H. 1 *m* 141 W. 63
Higbie, H. H. 1 *s* 223 W. 105
Higgins, J. E. 3 *s* 518 Manhattan ave.
Higgins, S. L. 2 *m* Roselle, N. J.
Hildenbrandt, Miss J. C. 3 *t* 1270 Amsterdam ave.
Hildreth, H. R. gr *t* 530 W. 123
Hildreth, T. F. 4 *s* 530 W. 123
Hill, E. 1 *c* 183 W. 73
Hill, H. N. 1 *b* 183 W. 73
Hill, L. 4 *s* 215 W. 54
Hillhouse, J. Ten E. 1 *s* 105 Hudson terrace, Yonkers, N. Y.
Hillman, Miss S. F. *ph* 1161 Amsterdam ave.
Hills, W. F. 2 *c* 366 W. 117
Hinckley, F. E. *pl* 600 W. 225
Hincks, R. B. 3 *c* 412 W. 115
Hino, M. *ph* 700 Park ave.
Hirsch, S. H. 1 *b* 1140 Madison ave.
Hirsch, S. I. 3 *m* 29 W. 114
Hirschoff, E. A. F., Jr. 1 *m* 9 S. 10, Newark, N. J.
Hirschthal, M. 3 *s* 644 6
Hirshbach, H. F. 1 *b* 324 West End ave.
Hirst, Miss G. M. *ph* 32 W. 40
Hishida, S. *pl* 108 Waverly pl.
Hitchcock, M. L. 1 *s* 13 W. 224
Hix, M. sp *t* 2104 Amsterdam ave.
Hoadley, H. *ph* 338 W. 56
Hoagland, W. L., Jr. *pl* 160 Summer ave., Newark, N. J
Hochlerner, T. 4 *s* 204 Henry
Hochsprung, G. W. 1 *s* 111 Patchen ave., Bklyn
Hodges, A. L. *ph* 309 W. 101
Hodges, Mrs. J. P. sp *b* 176 W. 105
Hodges, Miss M. R. *p* 408 W. 115
Hodgson, F. G. 4 *m* 151 W. 70
Hoffman, A. 2 *c* 217 Hewes, Bklyn
Hoffman, Miss A. C. *ph* 356 Henry, Bklyn
Hoffman, E. 1 *l* 230 E. 124
Hogan, R. 3 *c* 313 W. 17
Hogan, T. 3 *c* 313 W. 17
Hoguet, R. C. 3 *s* 141st st. and Hudson River
Holcomb, H. V. V. 2 *m* Mamaroneck, N. Y.
Holden, C. A. 2 *s* 470 E. 177

Holden, S. B. sp *c* 63 W. 95
Holdridge, W. H. 2 *m* 363 W. 56
Holland, H. S. 3 *c* 473 W. 152
Hollinger, E. sp *b* 1 W. 203
Hollis, Miss I. M. gr *t* 85 W. 103
Holman, P. R. 2 *s* 362 W. 123
Holmes, C. A. 1 *m* 1043 Boston road
Holmes, C. S. sp *b* 39 Harrison ave., Montclair, N. J.
Holmes, D. A. 1 *s* 203 W. 79
Holt, C. 2 *s* 255 W. 45
Holthausen, W. F. 1 *m* 136 Kent, Bklyn
Hood, P. G. 1 *m* 2 Ferry, Newark, N. J.
Hooker, H. L. 1 *m* 50 W. 89
Hope, I. M. 2 *b* 130 W. 123
Hopkins, B. S. *p* 358 W. 118
Hopkins, G. G., Jr. 4 *s* 528 W. 123
Hopkins, J. G. 3 *c* 528 W. 123
Hopps, D. V. 2 *l*
Horn, E. 2 *b* 115 N. 17, East Orange, N. J.
Horowitz, B. 1 *m* 65 E. 114
Horowitz, I. 2 *m* 243 E. 112
Horowitz, P. 1 *m* 544 E. 6
Horst, A. L. *pl* 204 W. 114
Horst, Miss M. L. gr *t* 132 N. 7th, Newark, N. J.
Hoshi, H. *pl* 17 Concord, Bklyn
House, E. 1 *c* 549 Manhattan ave.
Houston, H. E. *ph* Vreeland ave., Paterson, N. J.
Houston, O. R. 1 *c* 360 Pearl
Howard, C. M. 2 *b* 69 W. 88
Howard, J. K. *pl* 50 E. 70
Howard, L. R. *pl* 41 E. 69
Howe, E. J. 3 *t* 526 W. 123
Howe, J. P. 2 *l* 135 E. 38
Howe, J. R., Jr. 1 *l* 188 S. 9, Bklyn
Howell, J. J. 1 *s* 210 W. 122
Howland, De R. 1 *c* 140 Woodland ave., New Rochelle, N. Y.
Hoyt, J. F. 1 *b* 17 E. 95
Hoyt, R. P., Jr. 1 *c* 331 W. 83
Hubbard, F. E. 1 *b* 308 W. 93
Hubbard, G. C. 4 *s* 530 W. 123
Hubbard, Miss M. B. 1 *t* 530 W. 123
Hudson, C. E. 4 *b* 157 Franklin, Astoria, N. Y.
Hudson, D. S. 4 *s* 157 Franklin, Astoria, N. Y.
Hudson, H. 1 *s* 1 E. 76
Huerstel, M. G. 1 *s* 153 E. 76
Huff, E. P. 2 *m* 219 E. 27
Huffaker, H. H. 3 *l* 416 W. 118
Huggan, Miss A. E. sp *t* 248 Clifton ave., Newark, N. J.
Hughan, E. M. 1 *b* 663 Quincy, Bklyn
Hughes, D. E. sp *c* 2085 5th ave.
Hughes, Miss K. H. sp *t* 440 W. 43
Hughes, Miss M. M. sp *t* 204 W. 83
Hughson, Wm. B. sp *t*
Hull, A. 1 *m* 17th ave., Bath Beach, N. Y.
Hull, A. B. 2 *s* 53 W. 127
Hull, E. T. 1 *m* 258 W. 54
Hull, F. I. sp *c* 105 Franklin ave., Mt. Vernon, N. Y.
Hull, Miss M. D. sp *t* The Albany, 51st st. and Bway
Hulse, Miss E. A. sp *t* 101 Lawrence
Hume, E. F. 4 *m* 103 W. 63
Humphreys, F. B. 2 *m* 146 E. 37
Hunn, J. T. S. sp *m* Plainfield, N. J.
Hunt, E. H. 3 *b* West Orange N. J.
Hunt, M. M. 1 *b* 579 Jackson ave., Jersey City, N. J.
Hunt, P. D. 3 *c* 448 9, Bklyn
Huntting, G. H. 3 *c* 124 Quincy, Bklyn
Hurd, Miss J. M. gr *t* Rosebank, N. Y.
Hurley, T. L. 1 *l* 117 E. 92
Hussey, F. V. 1 *m*
Hutton, A. L. 3 *c* 319 W. 107
Hyams, Miss S. 2 *t* 29 W. 130
Hyde, H. St. J. *p* 210 E. 18
Hyde, J. S. 3 *m*
Hyde, O. T. 4 *m* 208 W. 58
Hyman, W. M. 3 *s* 11 E. 80

Iglehart, C. W. 3 *c* 245 Liberty, Newburgh, N. Y.
Ikeda, G. 3 *t* 17 Concord, Bklyn
Immediato, G. 4 *s* 248 W. 123
Ingalls, E. M. 3 *b* 83 Maple ave., New Rochelle, N. Y.
Ingraham, D. P. 3 *l* 13 W. 9
Insley, R. B. 2 *l* 225 W. 25
Irvine, F. B. 3 *s* 205 W. 57
Irving, P. F. 2 *m* 345 W. 57
Irving, R. E. L. *pl* 152 E. 113
Irving, Miss S. sp *t* 482 Mott ave.
Isaacs, A. 1 *l* 530 Willett ave.
Isaacs, I. E. 4 *b* 110 E. 73
Isaacs, S. M. 2 *c* 110 E. 73
Iselin, L. 1 *c* 11 W. 52
Isenburger, E. 1 *c* 93 Schenck ave., Bklyn
Ison, V. S. 1 *m*
Israeli, P. *ph* 736 Lexington ave.
Ittleman, G. H. 1 *l* 92 Moore, Bklyn

Jaches, L. 2 *m* 175 Henry
Jackson, A. 1 *m* Camp Gaw, N. J.

Jackson, Miss A. R. *ph* Fiske Hall, Barnard
Jackson, F. H., Jr. 4 *m* 347 W. 55
Jackson, J. C. 1 *l* 216 E. 68
Jackson, J. G. 4 *c* 116 and Riverside drive
Jackson, R. P. 2 *c* 432 St. Nicholas ave.
Jacob, W. H. 3 *m* 156 Jefferson, Paterson, N. J.
Jacobs, C. L. 3 *t* 722 E. 6
Jacobs, E. 4 *m* 163 W. 64
Jacobs, L. 1 *m* 246 E. 74
Jacobs, L. F. 4 *b* 365 Bainbridge, Bklyn
Jacobs, W. A. 1 *c* 365 Bainbridge, Bklyn
Jacobsen, H. B. 2 *s* 162 W. 99
Jacobson, S. O. sp *s* 123 E. 82
Jacoby, G. W. 3 *s* 112 E. 79
Jacoby, H. E. 2 *s* 195 Edgecombe ave.
Jacocks, H. H. 4 *c* 230 Central Park S.
Jarcho, J. 1 *m* Montefiore Home, W. 138
Jarvis, R. P. *p* 554 W. 125, care of A. H. Sealy
Jeffrey, S. L. 1 *m* 60 W. 93
Jellinghaus, C. F. 4 *m* 45 St. Mark's pl.
Jenkins, Miss A. D. sp *t* 419 W. 118
Jenkins, B. P. 3 *c* 21 Morningside ave.
Jenkins, Miss G. E. 2 *t* 145 W. 2, Mt. Vernon, N. Y.
Jenkins, R. W. 2 *l* 173 W. 85
Jenks, E., Jr. gr *t* Fordham Heights
Jenks, P. R. *ph* 360 Lenox road, Bklyn
Jennings, F. D. 3 *m* 128 W. 84
Joffé, J. A. *ph* 602 W. 125
Johnson, A. R. 4 *b* 168 Hancock, Bklyn
Johnson, A. S. *pl* 143 W. 122
Johnson, Miss E. gr *t* Fiske Hall, Barnard
Johnson, M. A. 2 *b* 356 W. 145
Johnson, Miss M. E. *pl* 168 Hancock, Bklyn
Johnson, T. B. 1 *l* 416 W. 118
Johnson, W. A. sp *s* 485 N. Bway, Yonkers, N. Y.
Johnson, W. A. sp *c* 137 W. 103
Johnson, W. F. sp *c* 55 W. 55
Jones, E. B. 2 *b* 43 Morton
Jones, E. L. sp *b* 120 W. 89
Jones, Miss F. F. 4 *t* 417 W. 118
Jones, F. V. 2 *l* 53 W. 51
Jones, S. F. 3 *m* "The Royalton," 44 W. 44
Jones, T. J. *pl* 237 E. 104
Jones, W. *ph* 29 W. 104
Jones, W. B. 4 *m* 306 W. 58
Joralemon, Miss B. H. 4 *t* 525 Scotland road, Orange, N. J.
Joseph, B. 1 *m* 43 Suffolk
Joseph, I. J. 2 *l* 323 E. 68
Josephson, W. S. 3 *l* 131 Amity, Bklyn
Josephthal, H. E. 4 *b* 30 E. 62
Josephthal, S. L. 3 *l* 30 E. 62
Jouard, F. L. 1 *c* 903 6th ave.
Judd, J. R. 4 *m* 346 W. 58
Judsan, Miss E. *ph* Montclair, N. J.
Judson, C. H. sp *c* 232 W. 122
Judson, S. E. sp *b* 53 Washington sq.

Kahn, Miss A. gr *t* 60 W. 114
Kahn, A. L. 1 *c* 10 W. 75
Kahn, E. J. 2 *c* 50 E. 83
Kaiser, C. S. 4 *s* 1161 Amsterdam ave.
Kaiser, E. M. 3 *l* 1 W. 81
Kane, H. A. 4 *b* 167 Congress, Bklyn
Kanner, S. H. 2 *m* 24 Ave. D
Kanolt, C. W. 3 *s* 408 W. 115
Kantronich, S. 1 *l* 61½ Mercer, Jersey City, N. J.
Kaplan, M. M. *ph* 411 E. 52
Karpas, M. J. 1 *m* 486 Grand
Katz, D. 1 *m* 242 Clinton
Kauffman, W. L. *p* Box 2, Yonkers, N. Y.
Kaufmann, J. 2 *b* 58 E. 83
Kauvar, C. H. *ph* 736 Lexington ave.
Kayser, H. C. A. 3 *l* 1063 Lexington ave.
Kayser, W. D. 2 *s* 1063 Lexington ave.
Keator, H. M. 3 *m* 346 W. 58
Kebler, L. 1 *s* 606 W. 114
Keegan, T. D. 1 *m* 208 E. 10
Keeler, G. B. 4 *c* 386 Monroe, Bklyn
Keeler, H. A. 2 *c* 782 6th ave.
Keenan, A. J. 3 *m* 138 St. James pl., Bklyn
Keep, A. B. *pl* 217 Greene ave., Bklyn
Keil, Miss C. E. 1 *t* 402 E. 79
Keiley, J. W. *ph* Harvard Club
Keithley, R. H. 2 *s* 886 St. Nicholas ave.
Kelley, R. H. sp *c* Hartsdale, N. Y.
Kellogg, H. K. W. 2 *m* 111 W. 62
Kellogg, O. C. 4 *b* 124th st. and Bway
Kelly, B. H. *ph* Westchester, N. Y.
Kelly, E. J. 2 *l* 1161 Amsterdam ave.
Kelly, J. J. sp *c* 34 E. 69
Kelly, R. 3 *c* 119 E. 72
Kelly, W. H. sp *t* 153 E. 88

Kemp, C. 1 *m* 17 Humboldt, Bklyn
Kemp, W. C. B. *pl* 607 W. 113
Kempner, L. S. sp *s* 20 W. 99
Kempner, M. 4 *s* 204 Monroe
Kennan, R. A. 1 *l*
Kennard, W. S. 1 *m*
762 Broad, Newark, N. J.
Kennedy, Miss A. 1 *t*
1350 Amsterdam ave.
Kennedy, C. W. 2 *c* 13 Taylor,
West New Brighton, N. Y.
Kenney, F. J. 2 *s* 214 E. 11
Kent, E. B. sp *t* 18 Morningside ave.
Kent, J. M. 2 *m* Putnam, Conn.
Kent, R. 1 *s* Tarrytown, N. Y.
Kenyon, H. D. 2 *m* 308 W. 58
Keppel, D. 4 *s* 239 E. 17
Kern, E. F. *p* 77 Lenox ave., cor. 114
Kernan, J. D., Jr. 2 *m* 307 W. 102
Kerr, A. T. 1 *c* 335 E. 121
Kessel, L. 2 *m* 111 Franklin
Kilroe, E. P. 1 *c* 166 Grand,
Jersey City, N. J.
Kimball, C. C. 1 *m* 110 E. 29
Kimball, V. L. 3 *b* Greenwich, Conn.
King, H. L., 2 *b* 4 Hancock pl.,
Bklyn
King, Miss I. J. sp *t*
85 Pierrepont, Bklyn
Kingsbury, I. W. 2 *m* 318 W. 57
Kingsbury, Miss S. F. *ph* 50 W. 38
Kinkeldey, O. *ph* 41 E. 132
Kinney, V. C. 3 *m* 144 W. 62
Kinosita, Y. *pl* 39 W. 132
Kirchwey, M. F. sp *b* 605 W. 113
Kirkwood, J. E. *p* New York Bot.
Garden, Bronx Park, N. Y.
Knapp, C. B. 3 *m* 129 W. 61
Knapp, J. R. 1 *l* 62 W. 51
Knauff, G. 1 *c* 176 S. Parsons ave.,
Flushing, N. Y.
Knight, H. B. 4 *s* 521 W. 223
Knight, R. 3 *m* 438 W. 57
Knipe, J. B. 2 *m* 353 W. 24
Knipe, W. H. W. 2 *m* 353 W. 24
Knoell, C. J. 2 *l* 412 W. 115
Knowlton, F. K. 3 *s* 150 W. 122
Knox, I. G. 1 *l* 19 E. 41
Knox, J. 1 *c* 244 W. 106
Knox, T. H. gr *t* 370 W. 120
Koenig, E. B. 1 *c* 1329 Madison ave.
Koenig, H. L. 3 *l* 323 Washington,
Newark, N. J.
Koenig, N. A. 2 *c* 80 W. 12
Koerner, W. K. 1 *l*
Kohn, A. H. 4 *c* 334 W. 72
Kohn, L. 2 *b* 21 E. 77
Kohn, W. T. 1 *l* 161 E. 93
Kohnstamm, L. S. 3 *s* 133 E. 71

Konuo, T. *pl* 505 W. 27
Kooser, Miss M. F. 4 *t* 225 E. 63
Korn, H. 4 *c* 45 E. 74
Kostman, J. 1 *l* 247 Warren,
Jersey City, N. J.
Kraeger, V. S. sp *c*
337 Stuyvesant ave., Bklyn
Kraker, R. L. 4 *b* 530 W. 123
Kramer, D. 4 *m* 110 W. 88
Kramer, J. J. 1 *l* 1716 Madison ave.
Krause, J. J. 1 *l*
Krauskopf, H. 3 *m* 236 E. 79
Krehbiel, O. F. 3 *m* 16 W. 120
Kresel, I. J. *pl* 136 W. 99
Kreshover, J. S. 1 *m* 179 Bowery
Kretz, W. C. 4 *s* 133 W. 129
Kreuder, H. E. 1 *c* 62 W. 97
Kroeber, E. 2 *b* 509 W. 142
Kroeber, Miss J. *p* 509 W. 142
Kroener, G. A. 2 *m* 353 W. 58
Krumwiede, C., Jr. 3 *c* 103 W. 84
Krusa, H. B. 1 *c* 725 Driggs ave.,
Bklyn
Kudlich, H. E. 1 *m* 153 W. 21
Kuhr, E. O. 3 *m*
299 Stuyvesant ave., Bklyn
Kuntz, C. *ph* 1115 Simpson
Kunz, E. F. 4 *b* 2684 Bway
Kupfer, Miss E. *p* 44 W. 97
Kupfer, Miss G. H. *ph* 44 W. 97
Kydd, Miss I. E. 2 *t* 203 W. 102

Labouisse, S. S. sp *s* 28 E. 9
Lachmund, Miss L. M. 1 *t*
Tappan, N. Y.
Ladd, H. 1 *l* 2164 5th ave.
La France, A. sp *c* 1855 7th ave.
Lambert, M. B. gr *t*
252 Madison, Bklyn
Lambuth, D. K. *ph* 305 W. 112
La Monte, S. L. 3 *b*
Landauer, L. L. 1 *c* 119 W. 111
Landers, W. H. 2 *s*
cor. Amsterdam ave. and 117
Lane, C. J. 3 *s* 129 Rich ave.,
Mt. Vernon, N. Y.
Lang, O., Jr. 2 *m* 249 W. 55
Langmuir, I. 2 *s* 185 W. 135
Langs, J. P. 3 *c* 319 W. 116
La Roche, P. B., Jr. 2 *c*
704 Madison ave.
Latham, M. E. 2 *b* 417 W. 148
Lathrop, H. W. 1 *m* 147 W. 64
Lathrope, G. H. 1 *m* 234 W. 52
Latta, J. B. 1 *m* 119 W. 61
Lau, R. J. *ph* 220 W. 35
Laubach, M. L. 4 *t* 436 W. 124
Lauterstein, L. 1 *l* 1855 7th ave.
Lavery, D. O'C. 3 *s* 351 W. 46

Law, C. T. 2 *s* 34 Gramercy Park
Lawrence, A. N. 4 *s* 119 Jamaica ave., Flushing, N. Y.
Lawrence, A. S. 3 *c* Box 453, Stapleton, S. I.
Lawrence, G. A. *p* 55 E. 65
Lawson, C. F. 1 *c* 21 Spencer pl., Bklyn
Lawson, J. H. 3 *m* 2 W. 106
Lawson, W. W. 3 *c* 146 and Mott ave.
Lawton, M. F. 2 *c* 17 Clifton pl., Bklyn
Lea, L. 1 *l*
Lea, O., Jr. 1 *l*
Leale, L. *pl* 604 Madison ave.
Leavenworth, Miss E. 4 *t* Passaic, N. J.
Leavitt, S., Jr. 2 *s* 417 W. 118
Leaycraft, A. C. 4 *b* 311 West End ave.
Le Comte, J. R. 2 *m* 213 W. 130
Lederer, A. M. 4 *c* Ridgewood, N. J.
Ledoux, L. V. 3 *c* 39 W. 50
Lee, A. 3 *l* 100 Broadway
Lee, L. 3 *m*
Leers, H. 1 *b* 401 Straight, Paterson, N. J.
Le Fevre, F. E. 2 *c* Low Point-on-Hudson, N. Y.
Lefferts, B. 2 *c* 308 Lexington ave.
Leffingwell, R. C. 2 *l* Yonkers, N. Y.
Leggett, N. B. 1 *m* West Brighton, N. Y.
Leiter, H. L. 2 *m* 123 W. 63
Leland, L. H. 1 *m* Clifton Springs, N. Y.
Lenehan, Miss E. 2 *t* 165 Bway
Leng, T. C. 2 *l* 4 Fletcher
Lennox, P. M. 2 *m* 438 W. 57
Lenssen, E. G. sp *b* 42 Dwight pl., Englewood, N. J.
Lent, M. F. 2 *m* 155 W. 61
Leonard, A. J. 2 *m* 251 E. 84
Leonard, J. *ph* 231 W. 69
Leopold, Miss C. R. 3 *t* 166 W. 87
Le Prince, L. A. W. 3 *s* 22 St. Nicholas pl.
Lesem, W. W. 2 *m* 25 Chestnut, E. Orange, N. J.
Lesinsky, L. 1 *l* 1109 Madison ave.
Levens, Miss B. 4 *t* 419 W. 118
Lever, Miss L. C. Y. 3 *t* 52 St. Felix, Bklyn
Levine, A. J. 4 *s* 337 W. 88
Levis, R. P. 1 *l* 363 W. 117
Levitt, B. A. 2 *s* 99 Forsyth
Levy, A. W. 1 *l* 202 Sands, Bklyn
Levy, B. 1 *m* 405 E. 118
Levy, D. H. 4 *m* 926 Columbus ave.
Levy, F. G. sp *b* 303 S. 2d ave., Mt. Vernon, N. Y.
Levy, G. 1 *b* Hotel Grenoble
Levy, I. H. 4 *m* 208 Broome
Levy, J. 1 *m* 136 Littleton ave., Newark, N. J.
Levy, J. 2 *m* 231 Cumberland, Bklyn
Levy, L. S. 3 *l* 2684 Broadway
Levy, S. S. 1 *l* 328 W. 55
Lewin, F. S. 1 *m* 47 Jefferson ave., Bklyn
Lewine, R. S. 1 *s* 16 E. 120
Lewinson, L. J. 1 *s* 129 E. 95
Lewis, A. F. *pl*
Lewis, A. H. sp *c* Greenwich, Conn.
Lewis, E. H. 2 *l* 608 W. 113
Lewis, G. L. 3 *t* 168 W. 123
Lewis, H. G. 2 *s* 507 W. 112
Lewis, I. E. 1 *b* 762 Kensington ave., Plainfield, N. J.
Lewis, J. H. 4 *m* 316 W. 57
Lewisohn, A. T. 2 *b* 9 W. 57
Lewy, H. M. 3 *c* 144 W. 93
Lexow, C. 1 *b* Nyack, N. Y.
Leyenberger, S. B. W. 4 *m* 98 3d ave., Newark, N. J.
Lichten, D. E. 1 *b* 1211 Madison ave.
Lichtenstein, O. R. 2 *l* 201 Columbia hts., Bklyn
Lidgerwood, J. H., Jr. 4 *s* 505 W. 112
Lieb, C. C. 3 *c* 310 W. 58
Lifshutz, N. 3 *m* 238 E. Broadway
Lillard, O. W. H. 2 *s* 138 W. 93
Lilly, Mrs. M. M. sp *t* 113 E. 87
Lindeman, H. E. sp *c* 114 E. 64
Lindeman, M. 2 *s* 343 E. 15
Lindheim, N. R. 1 *l* 128 W. 97
Lindsay, W. G. 4 *s* 207 W. 81
Linville, Miss L. A. 4 *t* 74 W. 124
Littell, E. G. 2 *m* 635 Park ave.
Littell, R. J. 3 *c* 34 Elm, Summit, N. J.
Littig, M. L. sp *b* 113 W. 47
Lloyd, N. J. sp *s* 358 W. 123
Lobo, A. 1 *s* 219 W. 44
Locke, Miss A. M. *ph* 136 E. 47
Locke, G. W. *pl* 700 Park ave.
Lockhart, E. V. sp *c* 343 W. 121
Lockman, F. I. 1 *l* 140 W. 73
Lockwood, A. F. 1 *s* 614 W. 113
Lockwood, H. Le G. 2 *b* 441 Park ave.
Lockwood, Miss M. E. sp *t* 41 W. 126
Lockwood, S. P. 3 *c* 29 W. 56
Loder, E. H. 2 *s* 461 S. Main, Port Chester, N. Y.
Loening, R. R. 1 *c* 294 Central Park, W.

Loew, H. K. 3 *m* 129 W. 61
Loftus, Miss M. M. 3 *t* 34 W. 61
Logan, Miss L. *p* Hotel Majestic
Lohman, W. H. 1 *m* 1215 Bway, Bklyn
Loizeaux, E. S. 4 *m* 119 W. 64
London, Miss J. T. 2 *t* 206 Clinton
Loney, F. R. 4 *s* 65 E. 64
Long, J. McM. 1 *m* 318 W. 57
Loomis, Miss C. D. *ph* 572 Park ave.
Loomis, J. H. 1 *b* 32 Park ave.
Lorber, H. 2 *m* 159 Suffolk
Lord, W. O. 2 *m* 127 W. 63
Lorenz, K. K. 4 *c* 168 W. 81
Lorenzo, F. A. 1 *m* 270 6th ave., Long Island City
Loughran, E. Du B. 3 *m* 24 W. 50
Lovell, Miss H. 2 *t* 534 W. 114
Loveman, A. 4 *b* 210 W. 139
Loveman, H. S. 2 *c* 210 W. 139
Lovett, Miss M. gr *t* 1350 Amsterdam ave.
Lowenstein, O. 1 *l* 42 E. 74
Lowenstein, S. A. 2 *l* 1270 Madison ave.
Lowrey, J. H. 3 *m* 446 Market, Newark, N. J.
Lucke, C. E. *s* Marble Hill, Kingsbridge
Ludlam, W. K. 4 *s* 12 W. 16
Ludlow, T. W. 2 *s* 375 Manhattan ave.
Ludwig, H., Jr. *ph* 110 Willoughby, Bkln
Lull, C. E. T. *p* 61 W. 96
Lunt, H. F. 3 *s* 1867 7th ave.
Luper, D. B. 2 *m* 200 W. 113
Lux, F. A. sp *s* 51 W. 54
Lyford, E. B. 1 *c* 8 Washington pl.
Lyman, Miss R. C. *ph* 37 W. 124
Lynch, J. K. 4 *c* 273 W. 114
Lyne, F. F. 2 *m* 127 W. 61
Lyon, Miss A. L. gr *t* 143 Hewes, Bklyn
Lyon, Miss E. N. gr *t* 201 W. 85
Lyon, R. 1 *b* Fiske Hall, Barnard
Lysle, W. S. sp *s* 507 W. 112

McAleer, Miss M. gr *t* 106 W. 61
McAlpin, E. A., Jr. *pl* 41 E. 69
McAneny, L. G. 1 *c* 526 W. 123 care Mrs. Richardson
McAnerney, J. A. 2 *s* 20 W. 49
McBee, C. *pl* 175 9th ave.
McBride, D. A. sp *m* 165 W. 64
McCabe, Miss E. A. sp *t* 2044 Madison ave.
McCabe, J. 3 *m* 78 Washington pl.
McCabe, T. S. 2 *m*. 400 Market, Newark, N. J.
McCallie, J. M. 1 *m* 29 Columbus ave.
McCallum, J. A. *pl* 700 Park ave.
McCann, J. F., Jr. 2 *l* 362 W. 121
McCarthy, J. F. 4 *m* 47 Linden, Yonkers, N. Y.
McCastline, W. H. 2 *m* 108 E. 81
McChesney, H. F. 3 *m* 143 W. 61
McClelland, G. W. sp *c* Dobbs Ferry, N. Y.
McClure, A. J. 1 *l* 22 W. 49
McCollom, H. C. 2 *c* 195 Lefferts pl., Bklyn
McCollom, W. E. 2 *m* 195 Lefferts pl., Bklyn
M'Conkey, H. A. gr *t* 129 Lexington ave.
McCook, J. A. sp *b* 10 W. 54
McCormick, R. H., Jr. 1 *l* 23 Washington sq.
McCormick, R. M. 1 *b* 153 High, Perth Amboy, N. J.
McCreary, Miss J. C. 3 *t* 419 W. 118
McCully, R. R. 4 *m* 220 W. 24
McCune, R. sp *s* care Wells, Fargo Co. Bank
McDonald, F. P. 1 *c* 1275 Bway
McDonald, J. E. 1 *c* 1275 Bway
McDonald, Mrs. M. I. sp *t* 112 E. 128
McDonnell, J. F. 4 *c* 21 W. 60
McDowell, W. St. L. 2 *s* 164 W. 123
McEntee, E. J. 4 *m* 144 Union ave., Bklyn
McFarland, G. H., Jr. 3 *m* 37 W. 90
McFarland, W. L. 4 *m* Park Avenue Hotel
McGill, E. L. 4 *m* 151 W. 70
McGonegal, H. S. 2 *l* 366 W. 118
McGrath, F. S. 3 *l* 138 W. 69
McGraw, T. A., Jr. 3 *m* 113 W. 40
McGrury, E. L. sp *t* 173 W. 99
McIntyre, H. B. sp *m*
McKee, D. 1 *l* 237 W. 24
McKeighan, Miss E. M. 2 *t* Fiske Hall, Barnard
McKelden, W. B., Jr. sp *c* 288 St. Nicholas ave.
McKelvey, C. W. 1 *l* 80 Washington sq., East
McKelvy, J. P. 4 *m* 137 W. 64
McKenna, W. A. 1 *s* 123 E. 72
McKenney, A. P. 3 *b* Fiske Hall, Barnard
McKenzie, E. T. 4 *m* 116 W. 84
McKeon, P. J. 4 *c* 239 W. 12
McKernan, Miss C. E. sp *t* 720 Ocean ave., Jersey City, N. J.

McKim, C. L. 4 *b* 69 Linden, Yonkers, N. Y.
McKinney, F. W. 2 *c* 94 Hamilton pl.
McLaughlin, C. B. 2 *s* 206 W. 136
McLaughlin, L. *ph* 206 W. 136
McLean, E. 1 *b* 31 Highland ave., Jersey City, N. J.
McLean, J. H. sp *c* 126 W. 57
McLellan, H. D. 2 *l* 208 W. 119
McLeod, G. R. *t* 429 Clinton ave., Bklyn
McLeod, Miss L. D. gr. *t* 429 Clinton ave., Bkln
McLintock, F. S. 1 *c* 149 W. 79
McLintock, H. M. 1 *c* 149 W. 79
McMahon, Miss M. E. sp *t* 169 W. 126
McMahon, R. C. *ph* 87 Hicks, Bklyn
McMillen, Mrs. E. M. B. *ph* Tottenville, N. Y.
McMurry, O. L. 4 *t* 26 Hamilton terrace
McNamara, E. J. 1 *m* 69 W. 93
McNaught, R. H. 3 *l* 855 West End ave.
McNermery, C. E. 1 *m* 104 Grand, Jersey City, N. J.
McPhee, R. J. 1 *l*
McRae, F. E. sp *b* 81 Morningside ave.
McRae, Miss J. 4 *t* 81 Morningside ave.
McSheehy, M. T. 1 *m* 103 W. 63
McSheehy, T. C. 3 *m* 103 W. 63
McVickar, J. A. 1 *s* Dobbs Ferry, N. Y.
Mabrey, Miss G. E. 3 *t* 508 W. 115
Macbean, W. A. B. 2 *m* Tarrytown, N. Y.
MacDonald, J., Jr. sp *m* 100 William
MacDonard, A. F. 1 *m* 188 E. Main, Waterbury, Conn.
Macdougall, C. W. 2 *s* 356 Linden ave., Elizabeth, N. J.
MacGuire, D. P. 3 *m* 25 Madison ave.
MacIntyre, C. B. 3 *c* 146 W. 12
Mack, Miss M. S. gr *t* 37 Morningside ave.
MacKellar, W. C. 1 *m* 655 Lexington ave.
Mackenzie, K. K. sp *l* 156 W. 106
Mackey, W. C. 1 *l* 253 Bway
Mackie, P. B. 1 *c* "The Grantley," Bway and 124
MacLachlan, J., III. 1 *m* 167 W. 79
MacLean, A. 3 *s* 608 W. 113
MacLear, Miss A. B. 4 *t* 522 W. 123
Macurdy, Miss G. H. *ph*
MacVay, Miss A. P. *ph* 153 E. 62
Maddock, Miss C. L. sp *t* 497 2d ave.

Madigan, J. C. 1 *l* 55 W. 84
Maeder, J. S. 1 *c* 304 E. 120
Maeulen, F. 3 *s* 308 W. 115
Magalhaes, H. W. 4 *t* 87 Lexington ave., Bklyn
Magewirth, J. O. *ph* Decatur ave. and Oliver pl., Bedford Park
Magie, J. E. *ph* 17 W. 119
Maguire, J. D. 1 *m* 68 W. 64
Mahan, L. E. 3 *c* 160 W. 86
Mairs, O. B. 3 *l* 104 W. 64
Maisenholder, E. F. 3 *s* 505 6
Maitland, Mrs. L. *ph* Fiske Hall, Barnard
Malcolm, J. D. 1 *m* 472 Central Park, West
Mandelbaum, H. D. 2 *c* 941 Madison ave.
Manny, F. A. gr *t* 18 Morningside ave.
Mansfield, A. N. *p* 22 Thames, Bkln
Manton, M. T. 3 *l* 946 Gates ave., Bklyn
Mapes, C. M. 4 *s* 137 W. 129
Mapes, C. S. 4 *c* 60 W. 40
Marcus, B. M. sp *c* 2098 5th ave.
Marcus, B. N. 1 *s* 121 E. 65
Marcus, J. 2 *l* 362 W. 121
Markham, C. L. 2 *m* 114 W. 61
Marks, E. 1 *c* 111 W. 136
Marks, S. B. 2 *m* 129 W. 61
Marsden, A. W. 2 *l* 364 W. 118
Marsh, Horace W. gr *t* 233A Willoughby ave., Bklyn
Marsh, R. McC. 1 *l* 1161 Amsterdam ave.
Marshall, C. B. 2 *l* 363 W. 123
Marshall, E. N. 1 *b* 268 Bergen ave., Jersey City, N. J.
Marston, C. S. 3 *s* 2048 7th ave.
Martell, D. E. *ph* 2101 8th ave.
Martin, C. sp *c* 112 E. 38
Martin, F. 2 *s* 105 E. 19
Martin, Miss F. E. sp *t* 354 W. 18
Martin, G. K. gr *t* 246 Lenox ave.
Martin, H. L., Jr. 1 *l* 56 Lenox ave.
Martin, Miss J. 3 *t* 528 W. 123
Martin, Miss M. B. V. *t* Fiske Hall, Barnard
Martin, T. 2 *m* 35 Columbus ave.
Mason, H. H. 1 *m* 106 W. 57
Mason, Miss M. K. gr *t* 1672 Broadway
Mast, Miss J. sp *t* 140 Halsey, Bklyn
Masury, J. W. sp *c* "The Barnard," 71st st. and Central Pk., W.
Mathews, Miss M. E. sp *t* 110 E. 91
Matthews, F. C. 3 *m* Hudson River Day Line, Desbrosses st. Pier

Matthews, W. H. *pl* 41 E. 69
Mattice, H. A. 4 *c* Westchester, N. Y.
Matty, L. J. 3 *s* 358 W. 123
May, E. C. 2 *b* 205 W. 57
Mayer, L. 1 *s* 121 E. 69
Mayer, Miss H. sp *t* 225 E. 63
Mead, L. D. 3 *m* 24 W. 50
Mead, T., Jr. 1 *s* 190 N. 6, Newark, N. J.
Meagher, J. F. W. 4 *m* 35 Willow pl., Bklyn
Means, Miss E. G. *ph* Fiske Hall, Barnard
Meany, E. B. 1 *l* Newark, N. J.
Meehan, J. A. 4 *s* 860 West End ave.
Meehan, V. G. 2 *s* 860 West End ave.
Meeker, H. D. 3 *m* 318 W. 57
Meeker, R. *pl* 363 W. 123
Meeks, C. G. 3 *c* Weehawken, N. J.
Meeks, R. 4 *s* 17 W. 84
Megrue, R. C. 2 *c* 200 W. 57
Mehler, G. J. 1 *m* 441 W. 57
Meigs, Miss K. H. gr *t* 10 Lawn Ridge, Orange, N. J.
Meissner, W. C. 3 *s* 48 W. 25
Mellor, F. 1 *l* 705 Lexington ave.
Menges, C. P. 1 *s* 419 W. 47
Menges, P. C. 3 *s* 419 W. 47
Menken, G. v. B. sp *b* 422 West End ave.
Menline, J. S. 3 *l* 356 E. 69
Menocal, D. A. 2 *c* 251 W. 81
Merchant, M. H. 4 *m* 139 W. 61
Merrell, Miss C. C. sp *t* 153 E. 62
Merrell, H. B. 3 *s* Upper Montclair, N. J.
Merriam, Miss E. 4 *t* 410 W. 115
Merrick, H. S. 1 *l* 522 W. 123
Merrill, Miss S. B. 2 *t* 414 W. 118
Merriman, E. H. sp *c*
Merritt, C. C. 1 *s* 162 W. 87
Merry, F. C. 3 *s* 906 Jefferson ave., Bklyn
Mersereau, G. 2 *s* 130 E. 36
Mersereau, H. C. 1 *l* 130 E. 36
Mersfelder, A. sp *s* 410 Bergen, Newark, N. J.
Merwin, J. H. 1 *l* 352 W. 120
Metcalfe, L. M. 1 *b* 611 Bedford ave., Bklyn
Mettler, C. G. 1 *c* 134 W. 103
Metzger, W. J. 2 *l* 367 Manhattan ave.
Meyer, G. H. 1 *m* 141 W. 64
Meyer, J. J. 1 *m* 60 W. 129
Meyer, J. L. gr *t* 195 Lenox ave.
Meyer, R. B. 4 *c* 58 W. 113
Meyer, W. H. 3 *m* 1900 Amsterdam ave.
Meyers, R. A. 3 *c* 38 Bleecker
Michaelis, A. 1 *l* 591 Lexington ave.
Middleton, Miss F. sp *t* 366 St. Nicholas ave.
Middleton, G. 3 *c* 133 W. 11
Milan, C. W. 1 *l* 212 W. 121
Miles, G. F. 1 *s* The Chelsea, W. 23
Milke, E. E. sp *c* 90 Lembeck ave., Greenville, N. J.
Miller, Miss A. E. 4 *t* Plainfield, N. J.
Miller, C. C. *pl* 41 E. 69
Miller, Miss F. *ph* 830 St. Nicholas ave.
Miller, G. A., Jr. 3 *s* 146 Grove, Montclair, N. J.
Miller, H. 2 *l* Jamaica, L. I.
Miller, H. C. 1 *l* 352 W. 120
Miller, J. D. *pl* Chelsea sq.
Miller, J. N. 1 *l* 362 W. 118
Miller, J. W. 2 *b* 314 W. 104
Miller, J. W. *p* 304 W. 115
Miller, L. A. 1 *b* 78 Bway, White Plains, N. Y.
Miller, M. E. 1 *b* 64 Pennsylvania ave., Bklyn
Miller, N. D. 3 *l* Steubenville, O.
Miller, R. B. 1 *l* 417 W. 114
Miller, Miss S. 4 *t* 408 W. 115
Miller, Miss S. R. M. gr *t* 530 W. 123
Miller, W. L. 2 *s* 358 W. 123
Milliken, S. M., Jr. 3 *m* 990 Madison ave.
Milliken, S. R. 3 *m* 129 W. 61
Mills, E. T. 1 *b* 442 1, Bklyn
Mills, H. J. 4 *s* 358 W. 123
Miner, L. L. 1 *m* 143 Madison ave.
Minor, H. R. 1 *s* 65 W. 73
Minsky, A. H. 3 *s* 105 W. 113
Mitchell, Miss C. T. *pl* 27 E. 72
Mitchell, E. sp *b* 42 E. 51
Mitchell, E. B. 4 *c* Flushing, N. Y.
Mitchell, G. H. 2 *l* 2 W. 82
Mitchell, Miss J. R. 4 *t* 109 Garden, Hoboken, N. J.
Mitchell, R. J. 4 *m* 911 West End ave.
Mitchell, R. S. 2 *s* 1161 Amsterdam ave.
Mitchill, T. C. *ph* 151 W. 47
Mittendorf, A. D. 1 *m* 140 Madison ave.
Mittendorf, G. S. 2 *l* 140 Madison ave.
Moeller, H. N. 1 *m* 341 W. 57
Moën, L. 2 *s* 308 W. 77
Moën, M. W. 2 *b* 308 W. 77
Moffatt, M. R. 4 *s* Mamaroneck, N. Y.
Moffett, S. E. *pl* 351 W. 114

Moffit, A. R. 1 *m* 129 W. 61
Mohr, A. G. *pl* 17 Bedford
Mohr, F. J. 2 *s* 530 W. 142
Moller, F. G. 2 *l* care Mrs. McElhane, 209 W. 107
Moller, Miss L. E. *ph* Fiske Hall, Barnard
Molony, J. J. 1 *m* 338 W. 32
Molwitz, E. J. sp *b* 2707 8th ave.
Monahan, F. M. 1 *m* 134 E. 16
Monroe, P. M. 3 *m* Yonkers, N. Y.
Monteith, Miss C. sp *t* 347 Manhattan ave.
Montgomery, W. H. *pl* 50 E. 70
Moody, Miss E. M. gr *t* 23 E. 11
Moody, H. R. *p* 159 W. 105
Mooney, F. X. 3 *l* 235 W. 123
Mooney, M. A. sp *b* 293 W. Houston
Moore, A. J. sp *c* 248 W. 113
Moore, B. B. sp *s* 109 E. 38
Moore, C. H. sp *c* 248 W. 113
Moore, C. M. *p* 168 W. 123
Moore, Miss E. P. sp *t* 70 W. 11
Moore, J. B. 4 *c* Pearl River, N. Y.
Moore, J. R. 1 *l* 318 W. 57
Moore, M. W. 3 *b* 76 Passaic ave., Passaic, N. J.
Moore, W. P. sp *t* 70 W. 11
Moore, W. U. 2 *l* 203 W. 117
Moorhead, H. G. 2 *l* 2053 7th ave.
Moorhead, R. L., Jr. 1 *m* 387 Bergen, Bklyn
Morales, L. 1 *s* 505 W. 144
Morey, J. S. gr *t* 42d st. and 16th ave., Bklyn
Morey, Miss S. B. sp *t* 304 Grand ave., Astoria, N. Y.
Morgan, A. M. sp *b* 1001 Carnegie Hall
Morgan, C. E. 1 *b* 1173 Bushwick ave., Bklyn
Morgan, F. sp *m* 200 W. 106
Morgan, W. O. 2 *l* 419 W. 118
Morgans, F. D. 4 *s* 310 W. 115
Mori, S. *pl* 270 W. 126
Morinaga, K. *pl* Care Mrs. Burns, 416 W. 108
Morley, F. H. 3 *s* 1867–9 7th ave.
Morley, W. R. sp *s* 435 W. 117
Morrell, F. A. 2 *s* 401 W. 34
Morris, A. H. sp *c* 39 Hart, Bklyn
Morris, G. gr *t* 30 Remsen pl., Bklyn
Morris, L. 1 *l* 509 W. 112
Morrison, C. E. 4 *s* 152 W. 99
Morrison, M. R. 4 *b* White Plains, N. Y.
Morsch, H. W. 1 *m* 308 Ellery, Bklyn
Mosenthal, H. O. 2 *m* 16 W. 85
Mosenthal, W. J. 4 *c* 16 W. 85
Moses, H. L. 1 *l* 147 W. 120
Moses, J. G. 2 *c* 118 W. 111
Mosler, F. H. 3 *m* 170 W. 73
Mott, H. L. sp *c* 769 11th ave.
Motte, J. W. sp *c* 138 W. 67
Moulthrop, J. R. 1 *l* 491 Manhattan ave.
Mount, T. 2 *s* 369 W. 120
Mourer, Miss C. L. gr *t* 145 W. 117
Moyman, W. T. 4 *m* 134 Hooper, Bklyn
Mueller, A. C. 3 *l* 351 W. 119
Muirheid, J. *ph* 1161 Amsterdam ave.
Mulcahy, T. A. 4 *m* 123 W. 63
Mulligan, Miss F. T. sp *t* 129 Main, Flushing, N. Y.
Mulligan, G. H. 2 *l* 71 Washington, Newark, N. J.
Mulligan, J. R. 2 *l* 71 Washington, Newark, N. J.
Munckwitz, Miss W. 1 *t* 125 W. 129
Munker, M. J. 1 *c* 129 E. 84
Munro, G. 1 *m*
Murphy, E. J. 1 *m* 773 Carroll, Bklyn
Murphy, F. P. 1 *m* 890 Cauldwell ave.
Murphy, G. H. 2 *m* Rosebank, N. Y.
Murphy, J. A. *ph* 615 Charles, W. Hoboken, N. J.
Murphy, J. D. 3 *m* 424 W. 57
Murphy, J. F. X. 1 *l* 773 Carroll, Bklyn
Murphy, J. J. 1 *m* 133 W. 111
Murphy, J. L. 2 *s* 19 E. 83
Murphy, W. A. 3 *s* 119 E. 91
Murray, W. S. gr *t* 364 W. 117
Murray, W. S. *ph* 404 W. 124
Myers, D. M. 4 *s* 309 W. 70
Myers, D. S. 3 *l* 108 E. 55
Myers, J. 1 *c* 309 W. 70
Myers, V. M. 2 *l* 571 Park ave.
Myres, M. J. 1 *m* 59 E. 92

Nadeau, O. sp *c* 68 E. 90
Nammack, Miss E. F. *ph* 167 W. 83
Narwood, H. M. sp *m* 424 W. 57
Nash, S. P., Jr. 4 *c* 115 E. 57
Nash, W. G. 2 *m* 441 W. 57
Nash, Miss W. O. 3 *t* 41 Elmwood ave., South Norwalk, Conn.
Nation, B. B. sp *c* 200 W. 94
Natori, W. *pl* 380 St. Nicholas ave.
Naumburg, A. 3 *b* 304 W. 71
Neef, F. E. 1 *m* 165 W. 64, care Mrs. Cumming
Neer, Miss M. L. 3 *t* 62 W. 104

Neff, C. M. 2 *l* 111 W. 96
Neff, P. A. sp *m* 151 W. 61
Neiswender, A. B. C. 3 *b* 923 Marcy ave., Bklyn
Nelson, L. M. *ph* 281 Decatur, Bklyn
Nelson, N. W. 2 *m* 281 Decatur, Bklyn
Nesbit, W. M. 3 *c* 841 West End ave.
Neu, S. S. 4 *s* 20 W. 94
Neugass, S. 1 *s* 71 E. 123
Neuman, H. sp *b* 70 E. 81
Neumann, W. 2 *m* 79 Willet
Nevins, D. R. 1 *b* 682 President, Bklyn
Newborg, Miss H. *pl* 33 E. 67
Newburger, H. W. 1 *c* 118 W. 111
Newcomb, M. sp *b* Fiske Hall, Barnard
Newcomb, Miss V. *ph* Fiske Hall, Barnard
Newman, C. A. 1 *m* 44 E. 129
Newman, E. L. 3 *b* Riverside, Conn.
Newman, F. J. 2 *m* 1632 Madison ave.
Newman, S. L. 4 *m* 141 Bowery
Newton, E. B. 2 *b* 554 Bedford ave., Bklyn
Nicholas, Miss P. C. 2 *t* 223 W. 122
Nichols, Mrs. E. C. sp *t* 543 W. 141
Nichols, W. H. *pl* 543 W. 141
Nicholson, J. M. 2 *s* 112 E. 28
Nicoll, A. 2 *m* 771 Bway
Nicoll, F. 2 *l* 1730 Bway
Nicoll, G. L. 1 *s* 323 W. 83
Nicoll, L. F. 2 *m* 515 Madison ave.
Niewenhous, K. E. sp *b* 18 E. 126
Niezer, C. M. *pl* 304 W. 115
Noble, Miss H. G. 4 *t* 432 Hoboken ave., Jersey City, N. J.
Noble, U. A. 1 *m* 161 W. 64
Nones, S. F. 2 *b* 159 W. 78
Norsworthy, H. R. 1 *s* 140 W. 109
Norsworthy, Miss N. gr *t* 140 W. 109
Nutt, R. E. 1 *b* Cliffside, N. J.
Nutting, H. 1 *m*

Oakley, W. L. 4 *s* 56 E. 49
Obert, C. W. 3 *s* 3134 Bway
O'Brien, J. M. 1 *m*
O'Brien, T. E. 1 *l* 247 Marcy ave., Bklyn
O'Connell, F. L. 1 *c* 100 E. 124
O'Connell. Miss M. F. sp *t* 210 W. 83
O'Connor, J. C. 1 *m* 146 W. 64
O'Crowley, C. R. 1 *m* 12 Lombardy, Newark, N. J.
Odell, H. R. sp *c* 1161 Amsterdam ave.
Odell, L. S. 2 *c* 98 Henry, Bklyn
Odencrantz, Miss T. C. 1 *t* 875 Brook ave.
O'Donovan, L. J. 3 *s* 302 W. 72
O'Dwyer, F. X. 2 *s* 2420 7th ave.
Of, C. sp *s* 892 Prospect ave.
Ogan, M. L. 2 *m* 62 W. 132
Ogden, C. J. 1 *l* 250 W. 88
O'Geran, Miss A. S. 3 *t* 500 De Bevoise ave., Astoria, N. Y.
Oken, R. B. *pl*
O'Laughlin, G. S. 2 *c* 521 W. 149
Olcott, G. P., Jr. 1 *m* 74 Carlton, E. Orange, N. J.
O'Leary, W. J. 2 *m* 236 W. 55
Olmstead, Miss S. H. 417 W. 118
O'Loughlin, C. S. 2 *l* 9 W. 13
Olsen, R. B. *pl* 1272 Amsterdam ave.
O'Neil, F. S. 1 *l*
O'Neil, J. S. 1 *l*
O'Neill, H. P. 3 *m* 175 W. 97
Oppenheimer, Miss A. *p* 317 W. 80
Oppenheimer, B. S. 4 *m* 201 W. 85
Oppenheimer, E. D. 1 *c* 56 E. 66
Oppenheimer, E. M. 1 *b* 1034 Park ave.
Oppenheimer, F. 4 *b* 31 W. 74
Oppenheimer, F. G. 3 *c* 4 W. 92
Orcutt, Miss H. M. sp *t* 153 E. 62
Ornstein, Miss M. *p* 147 W. 71
O'Rourke, M. F. 3 *m* 308 E. 13
Orthmann, Miss E. sp *t* 23 W. 12
Osborn, B. M. 82 N. Broadway, Yonkers, N. Y.
Osborn, C. W. 2 *c* 1855 7th ave.
Osborne, Miss E. *ph* 321 W. 106
Osborne, H. S. 2 *s* 321 W. 106
Osgood, C. 2 *m* Hotel St. Albans, W. 58
O'Shea, J. E. 4 *s* 31 W. 88
Ossoki, S. 2 *l* 208 W. 119
Ostrom, C. W. 2 *s* 277 8, Jersey City
Otis, S. 2 *s* Hudson terrace, Yonkers, N. Y.
Ottenberg, R. 3 *c* 58 E. 92
Oviatt, P. De W. 1 *l* 363 W. 117
Owens, G. C. 2 *m* 127 W. 63

Paddock, B. W. 1 *m* 317 W. 58
Page, A. W. 3 *m* 241 W. 54
Page, B. E. 2 *l* 304 W. 103
Page, R. W. 4 *s* 527 3, Bklyn
Page, W. M. sp *s* 47 W. 74
Palen, L. E. sp *t* 2066 5th ave.
Palliser, B. S. 2 *s* Dobbs Ferry, N. Y.
Palmenberg, O. W. 4 *s* 107 W. 70
Palmer, Miss A. R. 4 *t* 417 W. 118
Palmer, A. W. 4 *c* Waldorf-Astoria

Palmer, Miss F. L. 2 *t* Tenafly, N. J.
Palmer, Miss I. R. sp *t* 530 W. 123
Palmer, L. R. 2 *m* 339 W. 58
Palmer, R. S. 1 *l* Amenia, N. Y.
Palmer, Miss S. D. 3 *t* 138 W. 109
Papaziantz, M. V. *pl* 108 W. 41
Pappenheimer, A. M. 3 *m* 40 E. 65
Pardee, S. J. gr *t* Rosebank, N. Y.
Park, E. A. 1 *m* 317 W. 58
Park, M. sp *b* 175 W. 58
Parker, J. H. 4 *s* 3476 Broadway
Parker, L. R. 4 *s* 345 State, Bklyn
Parker, M. A. 1 *b* 141 E. 71
Parkhurst, Miss J. E. 2 *t* 135 N. 8th ave., Mt. Vernon, N. Y.
Parkinson, J. McD. 2 *m* 427 W. 57
Parks, J. W. 2 *l* 103 E. 21
Parr, H. L. 2 *c* Yonkers, N. Y.
Parrot, Miss A. B. 1 *t* 159 W. Grand, Elizabeth, N. J.
Parsons, Miss B. 4 *t* 417 W. 118
Parsons, G. 2 *l* Hempstead, L. I.
Parsons, G. S. 2 *l* 267 Halsey, Bklyn
Parsons, Mrs. H. *pl* 112 E. 35
Parsons, I. D. 4 *s* 344 W. 23
Parsons, T. 2 *l* Hempstead, L. I.
Paterson, D. C. 2 *m* 105 W. 88
Patri, A. gr *t* 453 E. 117
Patterson, A. C. 1 *l* 19 E. 45
Patterson, Miss J. L. gr *t* 98 Lockman, Bklyn
Pattison, M. A. 3 *s* 3132 Bway
Paur, H. S. T. 1 *c* 106 E. 70
Peabody, J. R. 2 *m* 366 W. 57
Peacock, D. L. *pl* 71 W. 128
Pease, T. N. 2 *m* 44 Bway
Peet, T. *ph* 22 W. 45
Pegram, R. B. 4 *c* 129 E. 40
Pelgram, G. O. 4 *m* 91 Riverside dr.
Pell, W. 3 *c* St. Anthony Hall, 116 st. and Riverside dr.
Pelton, Miss E. C. 3 *t* 528 W. 123
Pelton, E. F. 3 *s* 211 W. 102
Pelton, R. T. 2 *s* 358 W. 123
Pembroke, E. R. 2 *s*
Penney, C. J. *ph* 104 E. 55
Pentlarge, V. H. 3 *m* 441 W. 57
Pentz, J. B. 1 *m* 7 Hamilton Park, New Brighton, S. I.
Percy, H. F. 1 *s* 521 W. 123
Perham, Miss B. E. 4 *t* 74 W. 124
Periam, Miss A. *ph* 55 Roseville ave., Newark, N. J.
Perkins, Miss A. J. G. *ph* 60 E. 53
Perkins, Miss A. L. *ph* 112 W. 40
Perkins, I. C. 1 *c* 163 W. 121
Perkins, N. 3 *l* 5 E. 40
Perlman, W. 1 *s* 148 Madison
Perrin, E. N. *ph* 312 W. 113
Perrine, W. W., Jr. 3 *c* 820 West End ave.
Perry, T. L. 1 *c* 925 West End ave.
Persons, F. T. *ph* Union Theo. Sem., 700 Park ave.
Peters, C. M. sp *m* 937A Summit ave., Jersey City, N. J.
Peters, G. M. 3 *b* Fiske Hall, Barnard
Peters, H. T. sp *c* 117 E. 37
Peters, J. F. 1 *s* 367 Manhattan ave.
Petterson, E. De W. 1 *l* 305 W. 112
Pettit, J. G. 1 *c* 1366 45, Borough Park, Bklyn
Pettit, W. S. 1 *l* Far Rockaway, N. Y.
Petus, J. D. 1 *m* 115 W. 63
Pfletschinger, F. 3 *m* 315 W. 54
Pheil, J. G. 1 *l* 554 W. 125
Phelps, E. 3 *b* 412 West End ave.
Philipp, P. B. 1 *l* 691 Madison ave.
Phillips, Miss E. M. 4 *t* 3133 Bway
Phillips, F. G. 3 *m* 308 W. 58
Phillips, L. 3 *c* 1133 Bway
Phillips, U. B. *pl* 47 E. 16
Picher, O. S. 3 *l* 101 W. 73
Pickells, J. R. sp *c* 225 W. 99
Pickering, J. C. 1 *s* 51 W. 130
Pickhardt, W. P. 4 *s* 1042 Madison ave.
Pier, V. S. 4 *m* 407 W. 57
Pierce, E. F. 4 *m* 139 W. 63
Pierpont, D. C. 2 *m* "St. Albans," 58
Pierson, Miss E. B. 3 *t* 151 William, Orange, N. J.
Pierson, H. M. 2 *m* Roselle, N. J.
Pigott, S. J. 2 *s* 26 Morningside ave.
Pilcher, S. C. 1 *l* 305 W. 112
Pilgrim, J. C. gr *t* Kearney, N. J.
Pillow, J. H. 1 *m* Helena, Ark.
Pinckney, C. M. 1 *s* 85 Locust ave., New Rochelle, N. Y.
Pincomb, Miss M. J. 2 *t* 58 W. 109
Pinkus, W. 1 *m* 47 W. 137
Pinneo, F. W. 4 *m* 318 W. 57
Pitkin, H. W. 1 *l* 235 W. 116
Pitou, E., Jr. 1 *c* 112 W. 87
Pitske, E. D. 2 *c* 365 W. 119
Platt, Miss A. H. sp *t* 939 8th ave.
Plumb, Miss C. C. 2 *t* 345 Grier ave., Elizabeth, N. J.
Poinier, H. Le B. 3 *c* 75 Mitchell pl., E. Orange, N. J.
Pollak, A. W. 3 *m* 346 E. 58
Pollak, M. 4 *b* 210 W. 139
Pollak, W. V. 3 *b* Hotel Orleans, 80th st. and Columbus ave.
Pollock, H. W. 3 *l* 319 W. 124
Pollock, Miss M. H. gr *t* 161 Convent ave.

Pollock Miss R. 2 *t* 417 W. 118
Pomeroy, J. N. gr *t* 32 W. 26
Pond, C. M. 2 *s* 76 Liberty ave., New Rochelle, N. Y.
Pond, O. L. 2 *l* 61 W. 104
Pool, E. M. 2 *b* 267 W. 79
Poole, K. E. 2 *b* 733 Madison ave.
Poor, E. B. sp *b* 1 Lexington ave.
Popper, E. 1 *s* 260 W. 93
Popper, H. L. 1 *b* 260 W. 93
Post, W. McI. 4 *m* 348 W. 58
Posuer, E. R. 2 *m*
Potter, Miss E. H. 2 *t* 522 W. 123
Potter, P. S. 2 *m* 316 W. 56
Potts, G. H. 1 *c* 138 W. 57
Potts, R. B. 2 *c* 116 st. and Amsterdam ave.
Pou, R. E. 2 *m* 366 W. 57
Pounding, Miss E. sp *t* Prince Bay, S. I.
Powell, C. S. *p* 362 Clifton ave., Newark, N. J.
Powell, W. R. sp *s* 220 W. 123
Powers, Miss F. M. 3 *t* 228 W. 105
Powers, W. H. 3 *s* 8 W. 50
Preble, Miss G. R. 3 *t* 128 W. 104
Preece, Miss E. L. sp *t* 934 8th ave.
Prentice, A. C. 4 *m* 127 W. 62
Preston, J. F. 4 *b* Fiske Hall, Barnard
Preston, P. B. 4 *m* 218 Walnut, Newark, N. J.
Prettyman, V. 1 *m* Teachers Coll.
Pretzfeld, C. J. *p* 1211 Madison ave.
Pretzfeld, E. 1 *b* 59 E. 83
Pretzfeld, H. F. 2 *l* 59 E. 83
Priest, Miss M. C. *ph* Pineapple, Bklyn
Prince, H. S. 3 *c* 868 Flatbush ave., Bklyn
Proctor, D. G. 3 *c* 307 W. 82
Prokesch, S. Z. *ph* 112 E. 123
Prout, G. P. 3 *s* 604 W. 114
Province, O. A. 3 *m* 147 W. 64
Puente, A. M. 2 *m* 400 W. 58, care Mrs. Corrigan
Pugliese, A. gr *t* 500 E. 119
Pulliam, C. Le C. 1 *l* 235 W. 122
Pullich, O., Jr. 2 *c* 136 W. 111
Putnam, A. sp *b* 72 E. 56
Putnam, Miss B. H. *pl* 331 W. 86
Putnam, E. W. 1 *c* 306 W 77
Putnam, W. H. 1 *c* 507 West End ave.
Pyle, F. W. 3 *m* 341 W. 55

Quackenbos, G. P. *ph* 331 W. 28
Quackenbush, L. S. *p* 142 W. 57
Quell, J. A., Jr. 3 *m* 478 Decatur, Bklyn
Queneau, A. L. J. 76 W. 105
Quimby, E. S. sp *t* 123 W. 121
Quinn, C. M. 1 *m*
Quinn, W. T. 2 *l* 174 W. 126

Rabenort, W. L. sp *t* 646 E. 25, Paterson, N. J.
Radin, H. T. 3 *m* 347 E. 116
Radin, M. *ph* 347 E. 116
Rae, J. G. 4 *s* 953 Home
Rafferty, W. B. gr *t* New Dorp, N. Y.
Raiman, R. I. *ph* 492 Madison, Bklyn
Rainsberger, G. E. *ph* Drew Seminary, Madison, N. J.
Raisbeck, P. V. sp *s* 369 W. 120
Ranck, C. H. *pl* 52 E. 70
Ransome, Miss J. M. sp *t* 108 E. 10
Rappold, G. A. 2 *s* 750 Flushing ave., Bklyn
Raub, F. E. 2 *b* 54 E. 73
Ray, D. H. 4 *s* 416 W. 55
Raynolds, H. F. 3 *l* 367 W. 117
Read, C. P. 4 *s* 55 E. 54
Read, Miss E. F. *ph* 26½ South Elliott pl., Bklyn
Read, Miss M. P. *ph* 26½ South Elliott pl., Bkln
Read, T. T. 3 *s* 85 Cumberland, Bklyn
Recknagel, H. S. 3 *l* 169 W. 94
Recknagel, W. E. 2 *m* 49 Columbus ave.
Record, Mrs. C. E. 3 *t* 209 W. 129
Redington, E. J. 1 *l* 27 W. 45
Reeder, Miss B. C. sp *t* 648 Blackwell, L. I. City
Reid, E. J. 2 *s* 1200 Franklin ave.
Reid, Miss F. E. 2 *t* 315 Garfield ave., Jersey City, N. J.
Reid, R. L. sp *c* 148 W. 91
Reiley, Miss K. C. *ph* 2682 Bway
Reinhardt, E. 4 *m* 1694 Lexington ave.
Reis, A. M. 1 *c* 609 West End ave.
Reis, L. R. 3 *s* 609 West End ave.
Reissman, E. sp *m* 5 Beekman
Rendell, G. E. 1 *l* 328 W. 113
Rennert, R. J. 4 *b* 98 E. 114
Renninger, W. D 4 *c* 233 W. 123
Renny, Miss R. sp *t* 112 W. 137
Reppenhagen, Miss L. 1 *t* 606 W. 113
Requa, L. F., Jr. 3 *l* 400 West End ave.
Reynolds, G. 4 *m*
Reynolds, J. J. gr *t* 540 E. 164
Reynolds, M. T. 4 *m* 558 7th ave.
Reynolds, R. S. 1 *l*
Rhoades, L., Jr. 3 *c* 132 W. 70

Rhodes, G. B. 3 *m* 135 W. 64
Rice, D. B. 1 *m* 318 W. 57
Rice, J. F. 3 *m*
Rich, Miss J. *t* 368 W. 116
Rich, Miss J. P. 3 *t*
18 Morningside ave.
Rich, L. H. 2 *l* 11 W. 133
Richmond, J. P. W. 3 *s*
1144 Tinton ave.
Ridder, B. H. 2 *c* 447 E. 84
Riedel, C. O. 1 *s*
304 Clermont ave., Bklyn
Riederer, H. S. *p* 145 W. 94
Riegelman, C. A. 2 *l* 70 W. 94
Rigby, S. F. 2 *s*
Riggis, L. D. 4 *m* 79 E. 114
Riggs, A. F. 3 *m* 17 E. 35
Riggs, L., Jr. 2 *c* 46 E. 29
Riley, Miss M. 3 *t* 22 Powell, Bkln
Ringer, P. H. 1 *m* 345 W. 57
Ringland, R. F. 2 *m* Montclair, N. J.
Rionda, J. B. 4 *s* 464 W. 145
Rionda, L. J. 3 *s* 464 W. 145
Ripley, J. A. 3 *s* 23 W. 57
Rivera, E. 1 *l* 18 W. 19
Robbins, G. O., Jr. 1 *m*
237 Grand, Waterbury, Conn.
Robbins, R. D. 1 *c* 500 W. 143
Roberts, A. 4 *s* 604 W. 114
Roberts, E. C. 4 *b*
189 Madison ave., Flushing, N. Y.
Roberts, Miss H. E. 2 *t*
130 Rich ave., Mt. Vernon, N. Y.
Roberts, J. W. sp *b* Yonkers, N. Y.
Robertson, H. E. *ph* 368 W. 117
Robinson, A. 4 *s* 17 E. 49
Robinson, A. F. sp *c* 615 5th ave.
Robinson, A. M. 2 *b* Sayville, L. I.
Robinson, B. R. 3 *l* 42 W. 37
Robinson, E. M. 2 *m* 501 W. 140
Robinson, H. F. 3 *l* 42 W. 37
Robinson, J. L. 1 *c* 528 W. 123
Robinson, M. W. 2 *s*
300 Manhattan ave.
Robinson, R. C. 1 *m* 308 W. 58
Rockwell, Miss H. E. *ph* 122 W. 126
Rodger, C. A. 1 *s* 161 W. 64
Rodriguez, F. 2 *s* 1284 Columbus ave.
Rodriguez, J. A. 1 *m* 313 W. 14
Roe, Miss E. 2 *t* 217 W. 121
Roell, A. J. 3 *s* 1065 2d ave.
Rogers, A 4 *m* 318 W. 57
Rogers, A. F. *p* 363 W. 123
Rogers, H. M. 2 *b*
Fiske Hall, Barnard
Rogers, J. J. 4 *m* 318 W. 57
Rogers, J. S. 3 *l* 35 W. 49
Rogers, Miss S. A. 2 *t*
59 Butler, Bklyn

Rogers, T. F. 3 *l* 235 W. 123
Rogers, W. J. 3 *s* Newburgh, N. Y.
Rogers, W. L. 2 *l* 352 W. 123
Rokeach, A. 2 *m* 216 Henry
Rollins, F. *ph* 356 W. 145
Rollins, W. F. sp *c*
754 Carroll, Bklyn
Root, Miss L. F. *ph*
43 S. 7th ave., Mt. Vernon, N. Y.
Roovers, E. W. *ph* 170 Dean, Bklyn
Ropes, C. 2 *c* "The Kenesaw,"
Amsterdam ave. and 103
Rorty, Miss M. F. 3 *t*
Tuckahoe, N. Y.
Rose, C. R. 3 *c* 368 W. 116
Rose, J. T. 1 *m*
68th st. and West End ave.
Rose, R. H. 3 *m* 143 W. 61
Rosen, I. 2 *m* 124 Ridge
Rosenbaum, M. 2 *m* 73 Cannon
Rosenberg, D. D. 3 *m*
378 Park pl., Bklyn
Rosenblatt, B. sp *b* 55 E. 92
Rosenblatt, G. B. 3 *s* 58 W. 49
Rosenbluth, B. 3 *m* 336 E. 70
Rosenbluth, M. 3 *m* 102 Attorney
Rosenstein, A. 3 *b* 49 W. 96
Rosenthal, L. W. 3 *s* 203 W. 112
Ross, E. K. 1 *m* 825 Washington,
Hoboken, N. J.
Ross, H. W. 3 *c*
Ross, S. McN. 3 *s* 203 W. 103
Ross, W. H. 1 *m* 219 Penn, Bklyn
Rossbach, W. sp *c*
49 Oak, Mt. Vernon, N. Y.
Rostetter, Miss A. L. sp *t* 77 W. 91
Rothschild, C. G. 1 *s* 4 E. 67
Rothschild, S. 2 *l* 337 E. 51
Rowland, H. H. 2 *m* 128 W. 71
Royall, E. D. 2 *m* 357 W. 55
Royall, J. R. 1 *l* Lebanon, Conn.
Roys, Mrs. S. H. sp *t* 257 W. 85
Royse, S. D. 1 *l* "The Grantley,"
124th st. and Bway
Ruben, Mrs. J. B. sp *t*
515 Madison ave.
Rubidge, F. T. 4 *s* 240 W. 123
Rubinow, I. M. *pl*
1692 Lexington ave.
Rucker, E. W., Jr. sp *m* 147 E. 37
Runyon, L. P. 2 *m* 137 W. 64
Ruskay, B. 2 *s* 244 E. 86
Ruslander, S. L. 3 *l* 318 W. 113
Russell, D. L. 1 *m*
34 Clendenny ave., Jersey City
Russell, J. I. 4 *m* 318 W. 56
Russell, P. W. 2 *l* 104 Lexington ave.
Ryan, M. J., Jr. 2 *l*
370 Van Brunt, Bklyn

Ryan, P. F. 1 *l* 1001 Kent ave., Bklyn
Ryan, P. F. X. 4 *m* 111 E. 75
Ryshpau, B. sp *b* 271 E. Bway
Ryttenberg, C. P. 1 *l* 63 E. 78

Saam, Miss C. E. *t* 301 W. 112
Sage, D. 4 *s* 501 W. 113
Sage, Miss E. 4 *t* 2337 Bway
St. Clair, H. H., II. *ph* Nyack-on-Hudson, N. Y.
St. John, G. B. 3 *t* 157 Willoughby ave., Bklyn
St. John, T. R. 3 *c* 322 W. 117
Saladino, S. 2 *m* 387 Broome
Salant, L. *ph* 333 E. 123
Salant, W. *p* 1668 Madison ave.
Salberg, Miss E. J. sp *t* 266 W. 126
Sample, C. W. C. 1 *s* 13 W. 65
Sander, E. J. sp *s* 1387 Lexington ave.
Sandt, G. M. sp *s* 606 W. 113
Sandy, W. C., Jr. 4 *m* Newark, N. J.
Sanford, Miss M. T. 2 *t* 400 W. 151
Sanger, C. 1 *s* 126 W. 111
Sanguinetti, P. C. 1 *s* 362 St. Nicholas ave.
Sanville, F. L. 4 *b* 213 W. 105
Saphir, J. F. 3 *m* 330 E. 4
Sapinsky, J. 1 *l* 119 W. 114
Sargent, F. A. 2 *m* 23 W. 65
Sargent, W. A. 4 *t* 162 W. 129
Sarle, J. R. 3 *l* 491 Manhattan ave.
Sartori, A. J. 1 *m* 28 Roosevelt
Satenstein, D. L. 3 *m* 236 E. Bway
Satterlee, F. Le R., Jr. 1 *s* 8 W. 18
Saunders, T. L. 1 *m* 126 W. 84
Savage, L. L. 1 *s* 415 Riverside drive
Sayers, E. L. 2 *s* 218 W. 121
Schaeffer, B. L. 4 *m* 208 East Bway
Scharf, H. W. 4 *s* 453 Lenox ave.
Scharps, A. 2 *l* 70 W. 52
Scharps, C. E. sp *c*
Schaus, C. J. 1 *s* 111 St. Paul's ave., Stapleton, N. Y.
Schechter, N. 2 *m* 83 Monroe
Scheina, O. 2 *m* 1997 Lexington ave.
Scheinberg, L. 3 *m* 50 Attorney
Schenck, G. H. 1 *m* East Hampton, N. Y.
Schenck, G. K. W. 4 *m* Canarsie, Bklyn
Schenck, H. O. sp *b* 224 Clifton ave., Newark, N. J.
Schildecker, C. B. 4 *m* 129 W. 64
Schiller, Miss B. gr *t* College Point, L. I.
Schimper, F. J. Von M. 3 *s* 358 W. 123
Schlegel, J. W. sp *s* 602 E. 5
Schley, C. B. 1 *l* 845 5th ave.
Schley, G. B., Jr. *pl* 845 5th ave.
Schlosser, P. 3 *s* 2 E. 92
Schlussel, E. R. 1 *b* 37 W. 74
Schlwek, K. 1 *m* 316 E. 79
Schmelz, Miss I. H. 4 *t* 7 Greenwich ave.
Schmidt, C. G. A., Jr. 3 *s* 202 W. 139
Schmidt, F. S. 2 *s* 90 2d ave.
Schmidt, H. F. 2 *s* 351 W. 114
Schneider, C. A. 1 *s* 39 Gordon, Perth Amboy, N. Y.
Schneider, F. A. 4 *m*
Schnepel, G. A. 2 *m* 2193 Bway
Schock, D. R. 1 *s* 340 Manhattan ave.
Schoen, E. 3 *s* 57 2d ave.
Schramm, A. O. 1 *c* 478 Central Park, West
Schreiber, C. T. 1 *s* 743 Bushwick ave., Bklyn
Schreiber, G. G. 3 *l* 101 W. 54
Schroeder, G. G. sp *c* 116 st. and Riverside dr.
Schroeder, R. C. T., Jr. sp *c* 1045 Bloomfield, Hoboken, N. J.
Schuck, T. J. 1 *m* 1228 Garden, Hoboken, N. J.
Schueler, P. A. 1 *s* 38 E. 62
Schulhofer, S. 4 *m* 338 E. 120
Schulman, R. 2 *c* 263 W. 126
Schulte, H. von W. E. 3 *m* 47 W. 25
Schultz, A. P. 4 *m* 211 E. 105
Schur, C., Jr. 1 *s* 600 Park ave.
Schuster, E. 3 *c* 234 W. 120
Schuyler, M., Jr. *ph* 1025 Park ave.
Schuyler, R. L. 2 *c* 1025 Park ave.
Schuyler, S. E. 4 *b* 4 E. 37
Schwabe, Miss I. 3 *t* 73 E. 85
Schwartz, H. W. 4 *m* 336 W. 56
Schweitzer, H. G. 4 *m* 366 9th ave.
Schwerin, C. M. 4 *s* 324 W. 113
Scott, A. 3 *l* 258 W. 24
Scott, Miss C. A. *p* 302 W. 52
Scott, Miss C. W. sp *t* West Haverstraw, N. Y.
Scott, G. G. *p* 1270 Amsterdam ave.
Scribner, Miss A. sp *t* 23 E. 46
Seabury, Miss B. sp *t* 534 W. 114
Seaman, F. C. 1 *l* 135 St. James pl., Bklyn
Seaman, W. C. 3 *l* Glen Head, N. Y.
Sears, C. H. *pl* 175 E. 71
Sears, H. D. sp *l* 27 W. 15
Sears, W. H. sp *s* 314 E. 35
Seckel, W. 3 *m* 154 E. 79
Seelye, Miss F. S. *p* 1 W. 101
Seff, I. 3 *m* care Dr. I. L. Feinberg, 1716 Madison ave.

Seggel, O. F. 1 *l* 285 Central ave., Jersey City
Seguine, L. R. 2 *b* Rosebank, N. Y.
Seibert, J. R. 3 *b* 640 Putnam ave., Bklyn
Seidler, M. 2 *b* 108 W. 78
Seifert, K. F. J. 3 *s* 540 E. 157
Seil, H. A. 2 *c* 90 Smith, Perth Amboy, N. J.
Selfridge, N. R. sp *b* 86 st. and Riverside dr.
Seligmann, R. A. 2 *l* 124 E. 80
Sellick, E. E. 4 *m* 318 W. 57
Selvage, I. L. 1 *c* 546 Clinton ave., Newark, N. J.
Senftner, A. D. 4 *c* 148 W. 122
Sergeant, H. DeF. 1 *s* Summit, N. J.
Seringhaus, F. W. 1 *s* 954 8th ave.
Serrano, V. 4 *s* 3 W. 81
Sewall, F. H. 3 *c* 234 Montgomery, Jersey City, N. J.
Seward, A. L. 3 *b* East Orange, N. J.
Seward, M. C. sp *b* 606 W. 113
Seymour, J. C., Jr. 1 *c* 123 Manhattan ave.
Shaen, M. C. 3 *b* 31 St. Andrews pl., Yonkers, N. Y.
Shafer, H. W. gr *t* 436 W. 124
Shaffer, N. M., Jr. 1 *l* 28 E. 38
Shainwald, M. S. 2 *b* Fiske Hall, Barnard
Shainwald, R. L., Jr. 1 *c* 661 5th ave.
Shanks, L. E. P. *ph* 1692 Lexington ave.
Shannahan, R. J. 2 *m* 424 W. 27
Shannahan, W. D. *pl* 61 Elm, New Rochelle, N. Y.
Shapiro, B. 1 *l* 114 Eldridge
Sharp, J. C. 4 *m* 373 12, Bklyn
Shaw, F. S. 2 *s* 54 W. 98
Shaw, I. D. gr *t* 947 Amsterdam ave.
Shear, T. L. *ph* 364 W. 120
Shearer, L. H. 4 *m* 117 E. 54
Shearman, R. W. 4 *m* 765 Madison ave.
Sheerin, J. 4 *c* 12 W. 11
Shenkowitz, W. A. 1 *l* 280 W. 119
Shepard, E. I. *p* 368 W. 117
Shepard, W. A. 4 *c* 243 W. 97
Shepherd, R. P. *pl* 39 W. 132
Sherer, P. A. 3 *l* 530 W. 123
Sherman, A. L. 1 *m* 362 W. 57
Sherman, L. F. 2 *b* 953 Paulding, Peekskill, N. Y.
Sherron, G. A. 1 *s* Rowayton, Conn.
Shidloosky, J. 1 *l* 17 Catharine
Shields, H. 2 *c* 509 W. 112
Shipman, C. S. 3 *m* 1 W. 128
Shoemaker, W. B. 3 *c* 22 E. 46
Shoenfeld, J. B. 2 *c* 14 E. 76
Shreve, J. N. 3 *s* 136 E. 62
Shultz, M. E. 2 *m* 213 Whiton, Jersey City, N. J.
Shwitzer, S. D. 1 *l* 116 W. 136
Siegel, H. L. 4 *c* 1887 7th ave.
Sigerson, Mrs. E. G. sp *t* 94 E. 114
Siglar, H. B. 3 *m* Newburgh, N. Y.
Silbiger, S. 3 *l* 339 E. 123
Sill, F. H. 1 *s*
Silliman, J. C. 1 *m* 318 W. 57
Simmons, Miss A. P. 3 *t* 46 Park ave., Yonkers, N. Y.
Simmons, F. A. 2 *m* 308 W. 58
Simons, A. G. 2 *s* P. O. Box 131, Stapleton, N. Y.
Simons, C. F. gr *t* Stapleton, S. I.
Simpson, Miss E. B. *ph* Fiske Hall, Barnard
Sinclair, U. B. Jr. *ph* 100 W. 92
Singer, C. E. 1 *s* 404 Decatur, Bklyn
Sinnott, J. J. 2 *m* 242 S. 2d ave., Mt. Vernon, N. Y.
Skinner, Miss A. M. 4 *t* 554 W. 125
Skinner, M. D. 2 *b* 213 Lafayette ave., Bklyn
Slack, J. D. 1 *m* Litchfield, Conn.
Sladkus, S. E. 1 *l* 127 W. 120
Slamovitz, J. 1 *m* 221 E. 110
Slater, Miss F. W. *p* 356 W. 114
Sloan, A. 3 *m* 106 E. 55
Sloane, J. R. 1 *l* 109 E. 69
Sloane, T. O'C., Jr. 3 *s* 55 Montrose ave., S. Orange, N. J.
Slocovich, W. P. sp *s* 435 W. 117
Slocum, H. B. 4 *m* 411 W. 57
Small, F. W. sp *b* 54 W. 85
Small, H. F. 4 *c* 54 W. 85
Smallwood, J. C. 2 *s* 713 Madison ave.
Smillie, S. 1 *s* 650 Madison ave.
Smith, A. D. 3 *m* 53 Jefferson ave., Bklyn
Smith, Miss A. H. *ph* 117 W. 13
Smith, B. V. 1 *c* 39 Park ave., New Rochelle, N. Y.
Smith, C. H. 4 *m* 240 W. 73
Smith, Miss C. H. 3 *t* 198 Rodney, Bklyn
Smith, C. Le R. 2 *s* 51 W. 86
Smith, D. H. 3 *m* 18 E. 46
Smith, D. S. 3 *c* 134 W. 12
Smith, E. J. 1 *m* North Haven, Conn.
Smith, E. O., Jr. 2 *s* 535 W. 159
Smith, E. P. 4 *s* 505 W. 112
Smith, H. K. 3 *c* Ilion, N. Y.
Smith, J. B., Jr. 4 *c* 299 Alexander ave.

Smith, J. J. 1 *m*	344 W. 32
Smith, L. E. 4 *s*	118 st. and Morningside ave.
Smith, L. J. 2 *m*	Y. M. C. A., 318 W. 57
Smith, M. B. 1 *b*	Fiske Hall, Barnard
Smith, Miss M. L. 3 *t*	202 E. 105
Smith, Miss M. L. sp *t*	244 W. 132
Smith, R. L. 3 *l*	Woodside, N. Y.
Smith, R. W. 2 *c*	361 W. 22
Smith, T. M. 3 *l*	17 Madison sq., N.
Smith, W. J. 2 *l*	Waterford, N. Y.
Smith, W. L. 1 *s*	254–256 W. 98
Smith, W. W. gr *t*	25 W. 114
Smithers, C. H. 2 *c*	459 6, Bklyn
Smyth, D. W. 2 *s*	405 E. 61
Snedden, D. S. gr *t*	1270 Amsterdam ave.
Snodgrass, R. T. 3 *c*	610 Central ave., Plainfield, N. J.
Snow, L. F. gr *t*	259 W. 92
Snyder, F. X. 1 *l*	22 Prospect Park, W., Bklyn
Snyder, H. 1 *m*	279 Glenwood ave., Bloomfield, N. J.
Sofge, F. J. sp *m*	446 W. 57
Soloman, I. R. 3 *s*	1235 3d ave.
Solomon, E. L. *ph*	736 Lexington ave.
Solomon, L. A. 1 *l*	14 W. 120
Somers, A. B. sp *m*	417 W. 118
Southack, J. W. 3 *c*	48 W. 53
Southard, C. E. 3 *l*	239 W. 123
Southard, R. H. 2 *l*	203 W. 117
Spanier, L. 2 *m*	208 Stanton
Spannhake, H. L. 1 *m*	518 Hudson, Hoboken, N. J.
Spaulding, E. G. *ph*	242 Lenox ave.
Spaulding, F. B. gr *t*	513 Throop ave., Bklyn
Spaulding, Miss L. C. *ph*	E. 201
Speck, F. G., Jr. 1 *c*	W. Anderson, Hackensack, N. J.
Spence, H. T. 3 *c*	320 W. 75
Spencer, C. 2 *b*	Fiske Hall, Barnard
Spencer, C. W. *pl*	534 W. 114
Spencer, E. M. 1 *t*	
Spencer, H. R. *pl*	534 W. 114
Spencer, J. W. 3 *c*	236 W. 49
Sperling, F. W. 2 *l*	164 W. 81
Sperry, E. E. *pl*	223 W. 122
Spicer, C. C. 3 *c*	554 W. 125
Spiegel, L. 4 *m*	317 E. 30
Spiegelberg, S. L. 3 *c*	156 W. 44
Spiegelberg, W. S. 2 *c*	26 W. 83
Spingarn, A. 4 *m*	393 McDonough, Bklyn
Spiro, W. J. 4 *c*	58 W. 97
Spitzka, E. A. 3 *m*	66 E. 73
Spooner, M. S. 1 *b*	35 W. 61
Sprague, C. H. 1 *m*	214 W. 50
Springmeyer, C. E. gr *t*	451 E. 117
Squires, F. 1 *s*	600 W. 114
Staber, Miss M. J. 4 *t*	360 Clinton, Bklyn
Staber, Miss O. P. 3 *t*	360 Clinton, Bklyn
Staley, Miss J. E. 4 *t*	Fiske Hall, Barnard
Stangland, R. S. 1 *s*	157 W. 123
Stanglang, Miss J. C. 3 *t*	157 W. 123
Stanley, R. C. 4 *s*	505 W. 112
Stanton, B. J. gr *t*	Stapleton, S. I.
Stark, M. 4 *m*	433 E. 57
Stark, N. N. 4 *m*	257 2
Starr, R. S. 4 *m*	114 W. 69
Stauffen, E., Jr. 1 *c*	306 W. 78
Stayton, J. W., Jr. 3 *l*	305 W. 112
Stebbins, R. 1 *s*	33 W. 9
Steedly, B. B. 4 *m*	365 W. 55
Steele, Miss M. L. 1 *t*	106 W. 92
Steeves, H. R. 2 *c*	62 W. 130
Stein, C. R. 1 *s*	343 E. 47
Steinbock, H. 1 *l*	427 E. 50
Steindler, H. 1 *s*	308 W. 121
Stephens, J. M. sp *m*	225 E. 12
Stephens, Miss J. W. *ph*	80 W. 105
Stephenson, A. G. 1 *c*	147 W. 120
Stern, A. sp *m*	1829 Crotona ave.
Stern, N. *ph*	448 W. 43
Stern, R. M. 1 *b*	105 E. 78
Stern, W. T. 1 *l*	46 E. 78
Sterne, I. R. 2 *b*	993 5th ave.
Stetson, D. D. 2 *m*	349 W. 58
Stetter, D. W. 4 *m*	53 W. 133
Steven, Miss M. J. 3 *t*	417 W. 118
Stevens, C. D. *ph*	1808 Lexington ave.
Stevens, C. T. 1 *m*	New Rochelle, N. Y.
Stevens, Miss H. L. 1 *t*	254 W. 72
Stevens, T. S. 2 *s*	201 Washington Park, Bklyn
Stevenson, M. 3 *c*	10 W. 43
Stewart, Miss C. sp *t*	2337 Bway
Stewart, H. R. 3 *s*	359 W. 116
Stewart, J. B. 4 *s*	1390 Washington ave.
Stewart, L. W. sp *b*	168 Jefferson ave., Bklyn
Stewart, V. C. 1 *m*	"The Saxony," 82 st. and Bway
Stiasny, Miss F. F. 3 *t*	245 W. 104
Stickney, H. A. 1 *l*	168 W. 85
Stillman, C. K. 1 *m*	126 W. 84
Stix, Mrs. F. D. sp *t*	475 W. 152
Stobo, J. R. 1 *b*	214 W. 79
Stoddart, C. W. *p*	526 S. Broadway, Yonkers, N. Y.

Stoeckius, A. *ph* 78 E. 118
Stoll, H. F. 3 *m* Port Jervis, N. Y.
Stone, M. A., Jr. 2 *s*
244 Central Pk., W.
Stone, M. H. 1 *b* 1048 5th ave.
Stoops, J. D. *ph* 41 E. 69
Stork, L., Jr. 2 *m*
703½ 3d ave., Bklyn
Stoutenburgh, C. H. 1 *s* 59 W. 54
Stow, S. H. 1 *s*
Strasser, A. L. 1 *c* 128 E. 62
Stratford, A. C. sp *c* 416 W. 118
Straus, G. J. sp *b* 20 E. 76
Straus, M. C. 2 *b* 27 W. 74
Straus, S. 4 *b* 27 W. 72
Straus, Miss S. *pl* 2745 Bway
Strauss, C. A. 2 *l* 107 E. 73
Stray, A. T. 1 *c* 10 Tompkins ave.,
Sing Sing, N. Y.
Strebeigh, R. L. 3 *c* 76 E. 55
Stremel, K. F. 2 *l* 352 W. 123
Strodl, G. T. 2 *m* 614 Malone,
West Hoboken, N. Y.
Stromeyer, W. T. 4 *s*
1008 Trinity ave.
Strong, Miss E. E. 3 *t* 341 W. 56
Strong, S. M. 3 *m* 78 W. 85
Strouse, A. L. 2 *l* 51 Broad
Struyk, J. S. sp *s* Paterson, N. J.
Stryker, Miss A. B. 1 *t* 9 Lake,
White Plains, N. Y.
Stryker, E. de M. 4 *m* 139 W. 61
Studdiford, J. G. 4 *b*
Fiske Hall, Barnard
Sturcke, E. H. 1 *b*
Mamaroneck, N. Y.
Sturgis, G. F. 2 *l* 158 Noble, Bklyn
Sturtevant, H. R. 3 *c* 223 W. 122
Suling, J. W. 1 *l* 43 King
Sullivan, J. C. 1 *l* 322 Manhattan ave.
Sullivan, J. J. 3 *m* 103 W. 63
Sullivan, Mrs. M. V. sp *t*
Fiske Hall, Barnard
Sumner, Miss A. P. *ph* 522 W. 123
Sumner, F. B. *p* 17 Lexington ave.
Sumner, J. T. 1 *m* 104 Lexington ave.
Sundberg, Miss A. A. sp *t*
516 Orange, Newark, N. J.
Sundheimer, M. 2 *l* 38 W. 76
Sussman, P. 1 *m* 137–139 Allen
Sutliffe, Miss E. gr *t*
Port Richmond, S. I.
Sutphen, E. B. 3 *m*
Fiske Hall, Barnard
Sutton, G. A. K. 2 *c* 147 W. 128
Swan, B. L. 1 *b* 502 W. 149
Swan, G. J. *ph* 435 W. 43
Swart, C. T. 3 *c* 226 S. 2d ave.,
Mt. Vernon, N. Y.
Sweeney, J. C. 1 *c*
199 Sterling pl., Bklyn
Swortfiguer, H. B. 1 *c* 65 W. 83
Sykes, E. H. 2 *l* 208 W. 119
Sylvia, C. A. 3 *m* 106 Acushnet ave.,
New Bedford, Mass.
Symes, J. F. 1 *l* 353 W. 119
Symmes, W. B., Jr. 3 *l*
2002 Madison ave.

Taber, Mrs. J. D. sp *t* 151 W. 123
Taber, Miss M. A. gr *t*
8 Adams, Mt. Vernon, N. Y.
Taber, Miss M. R. *pl*
348 Lexington ave.
Takami, T. C. 1 *m* 301 Pearl, Bklyn
Talcott, Miss E. H. gr *t*
Tallmadge, W. H., Jr. 2 *m* 37 W. 61
Talmage, J. B., Jr. 1 *m*
294 Willis ave.
Tanenbaum, S. A. 1 *s* 110 W. 76
Tarditi, O. 2 *m* 387 Broome
Taschman, M. 1 *m* 30 Norfolk
Tattershall, Miss F. 4 *t* 417 W. 118
Tatum, E. H. 1 *l* 300 W. 106
Tavenner, E. 4 *c* 166 W. 92
Taves, A. W. 2 *m* 330 W. 57
Taylor, Miss A. M. sp *t* 2066 5th ave.
Taylor, C. T. 1 *c* 351 W. 119
Taylor, H. C. 2 *l* 252 W. 136
Taylor, J. sp *s* Newburgh, N. Y.
Taylor, J. W. 2 *c* 283 W. 11
Taylor, Miss M. H. 4 *t* 522 W. 123
Taylor, M. P. sp *c* 9 W. 64
Taylor, N. S. M. 1 *s* 352 W. 120
Teahan, W. J. 4 *m*
Tellzy, S. A. 2 *c*
191 Christopher, Bklyn
Tener, Miss E. 3 *t*
37 Morningside ave.
ter Meer, H. C. 4 *s* 930 Hudson,
Hoboken, N. J.
Terry, R. 2 *s* 204 W. 78
Terry, R., Jr. 1 *l* 169 Madison ave.
Tetley, T. A. 1 *s* 304 Bleecker
Teven, S. L. 2 *l* 238 7
Thayer, R. H. 4 *s* Yonkers, N. Y.
Thomas, C. L. 1 *l* 308 W. 115
Thomas, J. S. 1 *m* 166 W. 79
Thomas, M. D. 1 *m* 366 W. 57
Thomas, M. E. 1 *b* 157 Glenwood
ave., Yonkers, N. Y.
Thomas, W. F. 2 *c* 312 W. 87
Thompson, B. I. 2 *b*
206 Harrison, Bklyn
Thompson, E. C. 4 *m* 306 W. 58
Thompson, H. *pl* 521 W. 123
Thompson, J. F. 2 *s*
206 Harrison, Bklyn

Thomson, J. 3 *t* 605 Hudson
Thornley, J. 2 *l* "San Remo," 75 st. and Central Park, W.
Thorsen, Mrs. W. R. *pl* 1 W. 69
Thurber, A. E. 1 *c* Rutherford, N. J.
Thurston, L. S. 4 *s* Nutley, N. J.
Tibbals, A. 2 *s* 371 W. 119
Tibbits, Miss M. J. 3 *t* 533 Manhattan ave.
Tiemann, H. P. gr *s* 125 W. 43
Tilden, E. L. 2 *l* 227 W. 122
Tilton, A. R. 2 *m* 127 W. 63
Tinker, E. L. 3 *c* 48 E. 57
Titus, H. W. 3 *m* Auburn, N. Y.
Titus, S. H. 3 *s* 360 Grand ave., Bklyn
Todd, G. W. 4 *m* 345 W. 57
Tolman, G. *p* 779 Steinway ave., L. I. City
Tombo, C. 3 *s* 587 Walton ave.
Tomlinson, Miss C. 3 *t* 1268 Amsterdam ave.
Torpp, L. A. gr *t* Richmond, S. I.
Torrance, Mrs. F. C. *pl* Nepperhan Station, Yonkers, N. Y.
Torrey, H. B. *p* 463 Manhattan ave.
Torrey, J. C. *p* 242 Lenox ave.
Torsch, A. 4 *c* 31 W. 86
Toscano, L. J. C. 2 *b* 654 Academy, Astoria, N. Y.
Totten, E. L. 3 *b* 15 W. 73
Totten, W. W. 1 *s* 12 W. 16
Toussaint, C. A. 2 *c* 3688 Boulevard, Jersey City, N. J.
Townsend, H. C., Jr. 1 *c* 354 W. 123
Townsend, M. G. 4 *b* 354 W. 123
Townsend, M. T. 2 *l* 130 W. 121
Tows, F. H. 3 *l* 34 W. 52
Toy, C. R. 1 *c* 65 W. 70
Tracy, E. M. *ph* Gen. Theo. Sem., 20 st. and 9th ave.
Tracy, W. E. 1 *s* Plainfield, N. J.
Trainor, J. H. 2 *m* 156 Somerset, New Brunswick, N. J.
Trask, H. K. sp *s* 140 W. 46
Trigg, W. H. 3 *l* 203 W. 106
Trimble, L. M. sp *b* 214 Lenox ave.
Trotter, J. P. 1 *c* 189 Warburton ave., Yonkers, N. Y.
Trowbridge, E. K. *p* 115 E. 37
Truax, S. 2 *s* "Katahdin," 113 st. and Bway
Trube, Miss J. M. 1 *t* Hastings-on-Hudson, N. Y.
Tucker, Miss L. E. gr *t* 483 Putnam ave., Bklyn
Tucker, S. M. *ph* 100 W. 80
Tunick, I. S. 2 *m* 185 Allen
Turnbull, R. J., Jr. 3 *l* 6 W. 47
Turnbull, W. F. 2 *c* 27 Park pl., Orange, N. J.
Turner, Miss H. M. sp *t* 528 W. 123
Turner, L. D. 3 *l* 491 Manhattan ave.
Turner, W. A. 1 *l* 1272 Amsterdam ave.
Tuttle, C. H. 2 *l* 46 W. 85
Tuttle, Miss G. 4 *t* 417 W. 118
Tuttle, Miss J. A. sp *t* 560 Madison, Bklyn
Tuttle, Miss M. L. 4 *t* 417 W. 118
Tweedy, J. B. 2 *l* 712 West End ave.
Twichell, D. C. 2 *m* 317 W. 58
Twyeffort, W. K. 1 *s* 67 Hancock, Bklyn
Tyler, C. B. 3 *l* 226 W. 104
Tyler, E. F. 1 *s* 606 W. 152
Tyler, W. R. 1 *s* 36 W. 93
Tyn, S. L. gr *t* 143 Hewes, Bklyn
Tyson, F. L. 1 *l* 435 W. 117

Ullman, J. 2 *l* 1186 Madison ave.
Underhill, Miss E. A. sp *t* 53 Anderson ave., Port Richmond, N. Y.
Ungrich, M. J. 3 *s* 213 W. 133
Updike, D. M. 2 *s* 156 W. 74
Updike, E. H. 1 *c* 156 W. 74
Upshaw, Miss M. B. sp *t* 189 St. Nicholas ave.
Upson, W. R. 1 *m* Waterbury, Conn.
Upton, H. D. 3 *s* 181 W. 87
Upton, M. E. 4 *b* Fiske Hall, Barnard

Vail, R. W. 1 *m* 201 W. 117
Valentine, Miss M. 4 *t* 3133 Bway
Valieant, J. F. 2 *l* 93 W. 103
Van Alstyne, W. B. 3 *m* 116 W. 64
Vanamee, T. O. 1 *m* Newburgh, N. Y.
Van Cise, L. K. 2 *b* Fiske Hall, Barnard
Van Cise, W. M. 4 *c* 308 W. 115
Van Cott, E. E. 3 *b* 352 W. 117
Van Deerlin, R. W. 4 *s* 248 W. 123
Vandegrift, G. W. 4 *m* 76 S. 4, Bklyn
Vandenberg, J. 1 *m* 46 Ave. D
Van Deursen, H. T. 1 *b* Tarrytown, N. Y.
Van Dyke, B. S. 2 *m* 127 W. 63
Van Hoevenberg, H., Jr. 2 *l* 435 W. 117
Van Horne, J. R. 4 *s* 70 Summit ave., Jersey City
Van Horne, Miss K. *ph* 222 Pacific ave, Jersey City, N. J.
Van Huffman, O. 2 *m* 165 W. 77

Van Ingen, E. G. 1 *b* 135 Henry, Bklyn
Van Ingen, H. sp *b* 135 Henry, Bklyn
Van Ingen, P. 4 *m* 9 E. 71
Van Ness, S. W. 1 *c* 121 Mt. Pleasant ave., Newark, N. J.
Van Pelt, Miss S. E. 4 *t* 43 Franklin, Morristown, N. J.
Van Slyke, A. M. 1 *b* Fiske Hall, Barnard
Van Wagenen, E. 1 *s* 36 E. 53
Van Wart, F. B. 3 *m* 340 Putnam ave., Bklyn
Vary, H. J. 2 *m*
Vaughan, H. S. 1 *m* 1 W. 69
Vaughn, Miss M. M. 2 *t* 185 Newtown ave., Astoria, N. Y.
Veit, J. N. sp *c* Ashton Hotel, 93 st and Madison ave.
Verplanck, J. B. R. 1 *c* 1161 Amsterdam ave.
Ver Planck, W. E. 3 *s* 267 W. 79
Vetsburg, K. M. 1 *l* 533 W. 149
Veve, J. 1 *m* 106 Wall
Victor, R. C. 1 *l*
Viertel, S. gr *t* 37 W. 114
Vigouroux, G. E. 3 *l* 50 W. 84
Vincent, Miss G. 3 *t* 1268 Amsterdam ave.
Vinson, Miss B. 2 *t* 2688 Bway
Vintel, S. gr *t* 37 W. 114
Vogel, E. C. 1 *c* 56 E. 80
von Bernuth, R. L. 1 *c* 130 W. 64
von Deesten, H. T. 4 *m* 230 Washington, Hoboken, N. J.
von Pein, H. E. 1 *l* 467 W. 57
von Schrenk, A. 4 *s* 1676 East End ave.
Von Sholly, B. R. 2 *c* 148 Broadway, Flushing, L. I.
Voorhees, J. B. *pl* Woody Crest ave., High Bridge
Vreeland, W. N. 4 *m* 94 Forrest, Jersey City

Wade, J. E. gr *t* 166 W. 128
Wagstaff, A., Jr. 1 *s* 21 W. 21
Wainwright, J. M. B. 1 *m* 243 4, Jersey City
Wales, B. R. 3 *l* 254 W. 133
Walker, H. 3 *l* 55 W. 74
Walker, M. *pl* 887 Tinton ave.
Walker, T. L. 1 *l* Guttenberg, N. J.
Wallace, Miss E. F. *pl* Peekskill, N. Y.
Wallace, Miss M. L. 3 *t* 522 W. 123
Wallace, W. M. 3 *s* 60 E. 92
Wallach, A. F. 4 *b* 12 E. 62
Wallach, A. N. 2 *b* 403 Manhattan ave.
Waller, E. sp *b* 7 Franklin pl., Morristown, N. J.
Wallstein, L. M. 2 *c* 17 W. 124
Walmsley, H. B. 1 *l* 417 W. 118
Walser, C. W. 1 *m* West New Brighton, N. Y.
Walsh, J. J. S. 4 *m* Westchester, N. Y.
Walters, E. R. 2 *b* 505 W. 112
Ward, A., Jr. 2 *l* 32 W. 11
Ward, A. H. 1 *m* Paterson, N. J.
Ward, C. W. 3 *l* 417 W. 114
Ward, D. H. 2 *l* 57 E. 90
Ward, E. H. P. 4 *c* 67 Wall
Ward, E. St. J. 1 *m* 288 Lexington ave.
Ward, G. O. 3 *c* 420 W. 144
Ward, R. F. 1 *m* 640 Madison ave.
Ward, S. L. H. 2 *l* 417 W. 118
Ward, W. 1 *m* Bloomfield, N. J.
Ware, A. G. 2 *b* 1285 Madison ave.
Waring, A. T. 1 *b* 3133 Bway
Warner, L. T. 3 *l* 35 Mount Morris Park, West
Warren, A. D. 1 *c* 48 W. 9
Warren, Miss C. E. gr *t* Stapleton, S. I.
Warren, E. P. 3 *m* 318 W. 57
Warren, F. B. 3 *s* 101 W. 126
Warren, G. E. 2 *c* 48 W. 9
Warren, U. G. *ph* 67 Banks
Warren, W. A. 3 *s* 173 W. 79
Warren, W. T. 3 *s* Bronxville, N. Y.
Waterhouse, H. E. 3 *m* 347 W. 55
Waterman, E. F. 3 *l* 202 W. 103
Waters, R. L. 3 *s* 453 W. 143
Waters, S. 3 *c* 453 W. 143
Watson, C. E. 3 *s* 417 W. 118
Watson, E. L. sp *m* 119 W. 61
Watson, Miss L. G. gr *t* 528 W. 123
Watt, Miss M. W. gr *t* Fiske Hall, Barnard
Watters, L. L. *p* 171 E. 82
Watterson, H. 2 *l* 528 W. 123
Way, Miss C. M. 1 *t* 145 W. 117
Webb, F. R. 3 *m* 308 W. 58
Webster, C. E., Jr. 3 *m*
Webster, C. G. *ph* 364 W. 117
Webster, E. H. sp *c* 131 3d ave.
Wechsler, A. H. 4 *m* 61 Manhattan ave., Bklyn
Weekes, A. D., Jr. 2 *c* 116 st. and Riverside dr.
Weekes, H. H. sp *c* 116 st. and Riverside dr.
Weeks, L. S. 1 *s* 108 E. 26

Wehncke, M. L. 4 *b* Fiske Hall, Barnard
Weidmann, A. 2 *l* W. 119 st., cor. Manhattan ave.
Weidmann, O. W. 1 *m* 73 S. 9, Bklyn
Weil, H. M. sp *b* 36 E. 74
Weimert, O. J. sp gr *l* 307 W. 111
Weinrich, M. F. 1 *s* 76 Ashburton ave., Yonkers, N. Y.
Weinstein, M. J. 2 *l* 544 W. 14
Weinstock, L. 1 *m* 643 Lexington ave.
Weir, F. N. sp *b* Plainfield, N. J.
Weir, W. N. 4 *c* 41 E. 69
Weiss, F. H. 4 *m* 361 W. 58
Weissman, C. 1 *c* 2 E. 80
Weissman, M. 2 *m* 328 Stanton
Welch, A. J. 1 *l* 528 W. 123
Welch, W. F. 1 *l* Stoneham, Mass.
Welcke, C. J. 3 *s* 237 W. 112
Weller, Le R. *ph* 551½ Greene ave., Bklyn
Wells, F. L. 2 *c* 329 W. 83
Wells, Miss F. R. sp *t* 174 Rutledge, Bklyn
Wells, H. J. 4 *t* 503 Monroe, Bklyn
Wells, J. E. *ph* 343 W. 121
Wells, W. H. 3 *m* Central Park, W., cor. 66th st. and Boulevard
Wendell, M. G. 4 *b* 174 W. 107
Wendt, C. 4 *b* Larchmont, N. Y.
Wertheimer, L. W. 2 *l* 521 W. 123
Werts, H. E. 1 *b* Fiske Hall, Barnard
Wessel, Miss C. G. 4 *t* 749 Lexington ave.
West, G. M. sp *m* 330 W. 85
West, H. J. 3 *c* 330 W. 85
West, Miss M. C. 4 *t* 417 W. 118
Westcott, C. S. 4 *m* 407 W. 57
Westcott, W. B. 3 *m*
Westervelt, L. sp *c* 7 W. 50
Westfall, Miss M. J. 1 *t* 17 Darling ave., Mt. Vernon, N. Y.
Westgate, Miss H. E. 2 *t* 13 W. 120
Wetherhorn, H. 4 *c* 117 E. 77
Wettlin, Miss E. L. 3 *t* Leonia, N. J.
Weygandt, F. G. 4 *m* 645 Bedford ave., Bklyn
Wharton, W. P. 3 *c* 54 Morningside ave.
Wheeler, A. W. 3 *m* 318 W. 57
Wheeler, B. L. 1 *s* 509 W. 112
Wheeler, E. E. 1 *l* 874 West End ave.
Whitaker, A. C. *pl* 600 W. 125
Whitaker, F. P. 1 *c* 600 W. 125
Whitbeck, B. H. 2 *m* Y. M. C. A., 318 W. 57
Whitbeck, S. V. 4 *m* 114 W. 69
White, Miss C. 2 *t* 417 W. 118
White, C. B. *pl* 41 E. 69
White, C. S. 1 *m* 318 W. 57
White, F. J. 3 *s* 53 St. John's pl., Bklyn
White, G. D. 3 *m* 435 Fairmount ave., Jersey City
White, Miss J. C. 4 *t* 23 Emory, Jersey City
White, L. T. *pl* 700 Park ave.
White, Mrs. M. sp *t* 516 W. 125
White, R. H. 4 *c* 419 W. 118
Whitehead, H. St. C. McM. 1 *c* 1425 Bway
Whitehead, J. H. sp *b* 29 E. 74
Whitehouse, H. N. 1 *l* 143 Hancock, Bklyn
Whiteman, T. M. 2 *l* 367 Manhattan ave.
Whitin, E. S. 1 *c* 349 Clinton, Bklyn
Whitin, F. H. *pl* 349 Clinton, Bklyn
Whitman, W. R. 4 *m* A. H. Hospital, B. I., N. Y.
Whitney, C. E. 4 *b* 239 W. 105
Whitney, W. L. 3 *l* 2053 7th ave.
Whiton, M. K. sp *b* Plainfield, N. J.
Whiton, W. H. 1 *m* 2009 Newkirk ave., Bklyn
Whittaker, N. McL. 2 *m* 158 Macon, Bklyn
Whittemore, Miss A. P. 2 *t* 8 Morningside Park
Whittemore, E. R. 3 *m* 153 W. 81
Whyte, W. de B. 3 *s* 608 W. 113
Wichman, F. M. 2 *s* 343 W. 121
Wick, J. 1 *b* Elmhurst, N. Y.
Wickham, J. N. 2 *m* Corona, N. Y.
Wickham, R. D. 2 *l* 55 W. 82
Widmer, H. R. 2 *m* Port Richmond, N. Y.
Wiener, S. 1 *m* 65 W. 85
Wilburn, Miss E. P. 4 *t* 528 W. 123
Wilcox, Miss B. T. 2 *t* 159 W. 130
Wilcox, E. D. 2 *b* 1086 N. Bway, Yonkers, N. Y.
Wilcox, H. B. 3 *m* 317 W. 58
Wilcox, Miss M. *pl* 1086 N. Bway, Yonkers, N. Y.
Wile, U. J. 1 *c* 304 W. 89
Wilkinson, Miss E. L. 3 *t* 528 W. 123
Wilkinson, Miss L. 2 *t* 606 W. 113
Willard, F. A. gr *t* 299 Brooklyn ave., Bklyn
Willard, N. W. *ph* 227 W. 122
Willcox, J. E. 1 *c* 195 Lenox ave.
Willett, A. H. *pl* 143 W. 122
Willhöfft, F. O. 1 *s* 563 W. 183
Williams, Miss B. P. 4 *t* 647 Jefferson ave., Bklyn

Williams, F. D. 2 *m* Valley Falls, R. I.
Williams, G. A. 1 *m* 768 Springfield ave., Summit, N. J.
Williams, H. T. 4 *m* 363 W. 56
Williams, J. *ph* 551 5th ave.
Williams, J. J., Jr. 1 *m* 1980 Madison ave.
Williams, J. M. *pl* 41 E. 69
Williams, J. N. 2 *m* 445 W. 44
Williams, J. T., Jr. 4 *c* 237 W. 123
Williams, L. O. 1 *l*
Williams, P. H. 4 *m* 58 W. 82
Williams, Miss S. E. sp *t* 258 W. 129
Williams, T. M. 4 *m* 127 W. 61
Williamson, A. 3 *s* 110 W. 91
Williamson, G. W., Jr. 2 *s* 28 W. 130
Williamson, P. W. 1 *l* 2053 7th ave.
Willis, R. S. 2 *s* 313 W. 76
Willmarth, E. H. *ph* 370 W. 120
Willson, F. F. 3 *s* 27 E. 46
Wilner, E. R. 3 *s* 133 W. 12
Wilson, B. W. 3 *l* 498 W. 133
Wilson, C. H. 3 *s* 65 S. 2d ave., Mt. Vernon, N. Y.
Wilson, F. H. 1 *m* 574 Madison, Bklyn
Wilson, G. W. 3 *l* 60 Manhattan ave.
Wilson, J. H. *ph* Chelsea sq.
Wilson, L. G. 4 *s* 308 W. 89
Wilson, Miss L. M. 3 *t* 72–74 W. 124
Wilson, R. C. 1 *c* 521 W. 123
Wilson, R. P. 3 *s* 234 W. 129
Wilson, R. R. 1 *c* 521 W. 123
Wilson, S. K. 3 *c* 120 W. 76
Wilzin, J. 3 *l* 7 W. 90
Winslow, A. S. 3 *c* 68 W. 91
Winter, A., Jr. *pl* 22 E. 91
Winterburn, U. A. 3 *b* "The Eldorado," Bway and 75
Winward, Miss C. M. 1 *t*
Wise, F. 1 *m* 92 E. 111
Wise, H. E. 3 *c* 507 Madison ave.
Wise, H. M. 4 *c* 102 W. 121
Wise, L. D. 1 *m* 23 W. 65
Wissler, C. *ph* 414 W. 124
Wittemann, R. W. 3 *s* 88th st. and Ft. Hamilton ave., Bklyn
Witter, O. R. 4 *m* 143 W. 61
Witthaus, G. 1 *m* 27 E. 75
Woglom, W. H. 4 *m* 408 W. 57
Wolf, N. *ph* 736 Lexington ave.
Wolfe, W. H., Jr. 2 *l* 304 W. 103
Wolff, A. M. 2 *s* 31 W. 54
Wolff, E. 2 *c* 120 W. 88
Wolff, Miss G. *ph* 125 E. 73
Wolff, J. B. 4 *s* 31 W. 54
Wolff, M. 2 *m* 69 E. 80
Wolff, S. L. *ph* 125 E. 73
Wolheim, L. R. 1 *s* 74 E. 105
Wollheim, J. L. 3 *m* 317 E. 79
Wollmann, C. *ph* 408 W. 115
Wood, Miss A. I. *ph* 135 E. 16
Wood, Miss C. sp *t* Dwight Place, Englewood, N. J.
Wood, D., Jr. 3 *s* Irvington-on-Hudson, N. Y.
Wood, Miss E. C. *pl* 48 E. 21
Wood, L. N. 2 *l* 368 W. 117
Wood, W. 2 *s* 58 W. 51
Woodhull, Miss M. *ph* Fiske Hall, Barnard
Woodruff, I. O., Jr. 1 *m* 152 W. 78
Woodruff, J. K. 3 *t* 525 Fairfield ave., Bridgeport, Conn.
Woodruff, L. L. 4 *c* 202 W. 103
Woodson, C. W. 1 *m* 153 W. 61
Woodward, E. H. 1 *l* 418 Madison ave.
Woodward, R. S., Jr. 4 *s* 408 W. 145
Woolf, E. A. sp *c* 832 West End ave.
Woolley, E. C. *pl* 456 Manhattan ave.
Woolsey, J. M. 3 *l* 101 W. 54
Wooster, F. R. 3 *c* 371 W. 123
Worden, Miss A. J. 4 *t* 299 Ellison, Paterson, N. J.
Work, J. C. 1 *s* Oyster Bay, L. I.
Wormser, M. 2 *s* 836 5th ave.
Worth, Miss A. J. 4 *t* 72 W. 124
Worthington, H. R. 1 *s* Irvington-on-Hudson
Wortmann, A. 2 *c* 126 E. 79
Wortmann, M. 2 *l* 126 E. 79
Wright, A. S. 3 *c* 526 W. 114
Wright, C. A. 2 *l* 435 W. 117
Wright, Miss E. Corona, N. Y.
Wright, H. H. sp *b* 451 Morris ave., Elizabeth, N. J.
Wright, H. K. *ph* 41 E. 69
Wright, H. M. 3 *b* 32 McDonough, Bklyn
Wright, Miss J. sp *t* South Orange, N. J.
Wright, Miss M. *p* 422 Gold, Bklyn
Wund, W. F. 2 *l* 327 E. 30
Wuppermann, R. K. 1 *c* 35 W. 124
Wyant, Miss A. M. 2 *t* 200 W. 55
Wyatt, C. B. 2 *c* 28 E. 30
Wyatt, C. R. 1 *c* 28 E. 30
Wyckoff, C. J. 2 *c* 185 Penn, Bklyn
Wyckoff, C. R., Jr. 3 *s* 185 Penn, Bklyn
Wyckoff, Miss H. E. 3 *t* 81 E. 116
Wyld, R. H. 2 *c* 331 W. 83
Wylie, J. P. 1 *c* 160 W. 123
Wyman, A. F. 2 *c* 419 W. 118
Wynkoop, J. 2 *s* 130 W. 109

Wynne, S. W. 1 *m* 148 E. 18

Yates, Miss A. A. gr *t*
W. New Brighton, N. Y.
Yates, W. H. 2 *s* 309 W. 128
Yñigo, A. L. 1 *s* 58 Manhattan ave.
Yocum, J. G. 4 *m* Middletown, N. Y.
Yohannan, I. *ph* 175 9th ave.
Yohannan, M. 3 *c* 138 E. 48
York, H. J. 1 *m* 318 W. 113
Young, Miss A. R. sp *t* 151 2d ave.
Young, C. O. 1 *c* 67 W. 130
Young, Miss E. 4 *t* 509 W. 112
Young, J. W. 2 *m* 127 W. 74
Youtz, L. A. *p* 550 W. 125
Yudelson, Miss S. 3 *t* 158 E. Bway
Yung, M. B. 4 *c* 505 W. 112
Yuzzolino, A. M. 3 *l*
265 6th ave., Bklyn

Zaslaw, M. 2 *s* 1690 Madison ave.
Zeiger, F. *ph*
138 Park, Montclair, N. J.
Zelenko, D. 1 *m* 17 Varet, Bklyn
Zellhoefer, H. C. 1 *m* 175 S. 4, Bklyn
Ziegel, H. F. L. 4 *m*
1186 Lexington ave.
Ziegler, C. E. *ph* Boscobel ave.
Zimmerman, J. C. 1 *l*
Zinsser, H. W. 2 *m* 1 W. 94
Zipser, M. 4 *s* 123 W. 33
Zollenhofer, Miss S. gr *t*
394 Vanderbilt ave., Bklyn
Zucker, A. A. 3 *s* 1227 Madison ave.

Summary of Officers

Professors	77
Adjunct and Associate Professors	16
Clinical Professors and Lecturers	17
Instructors	69
Demonstrators	3
Assistant Demonstrators	12
Tutors	35
Assistants	46
Curators	3
Lecturers	23
Clinical Assistants	74
OFFICERS OF INSTRUCTION	375
OFFICERS OF ADMINISTRATION	17
EMERITUS OFFICERS	10
TOTAL	402

Summary of Students

At Columbia an effort is made to distinguish sharply between the College and the University. From this point of view,

Columbia College is the College
The Faculty of Law
“ “ “ Medicine
“ “ “ Philosophy
“ “ “ Political Science
“ “ “ Pure Science
“ “ “ Applied Science
} constitute the University.

College seniors may study under any of the university faculties. The Faculties of Law, Medicine, and Applied Science are professional faculties, and conduct the professional schools, known as the School of Law, the College of Physicians and Surgeons, the School of Mines, the School of Chemistry, the School of Engineering, and the School of Architecture. The Faculties of Philosophy, Political Science, and Pure Science conduct the work generally organized elsewhere as the graduate school; but in addition they give much instruction not only to seniors in the College, but also to regular students in the professional schools, a large percentage of whom are also college graduates. The table on the following page shows the total number of students studying in the College and under each faculty of the University, and also the number primarily registered in the College and under each faculty of the University. The first total, 2622, is free from duplication, and shows the exact number of students in the institution (exclusive of Barnard College, Teachers College, and the Summer Session). The second set shows the number studying under each faculty, including duplicates; the duplication indicates the extent to which Columbia's wide educational tender is treated as a unified tender, regardless of subdivision by schools and faculties.

Summary of Students (*continued*)

	Primary Registration	Total Registration
The COLLEGE:		
Senior class	89	
Junior "	98	
Sophomore "	97	
Freshman "	127	
Special students	63	
	——474	475
The Faculty of LAW:		
Third-year class	100	
Second-year "	148	
First-year "	172	
Special students	2	
	——422	443
The Faculty of MEDICINE:		
Fourth-year class	147	
Third-year "	150	
Second-year "	190	
First-year "	239	
Special students	49	
	——775	781
The Faculty of APPLIED SCIENCE:		
Graduate students	5	
Fourth-year class	99	
Third-year "	119	
Second-year "	130	
First-year "	148	
Special students	38	
	——539	541
The Faculties of PHILOSOPHY, POLITICAL SCIENCE, and PURE SCIENCE	412	600
TOTAL	2622	
BARNARD COLLEGE	293	371
TEACHERS COLLEGE	498	556
SUMMER SESSION	417	
AUDITORS	29	
EXTENSION STUDENTS	679	
TOTAL	4538	
LESS DUPLICATES	205	
NET TOTAL	4333	

ACADEMIC CALENDAR

1900—Oct. 1—Monday. First half-year, 147th year, begins.
Nov. 6—Tuesday. Election Day, holiday.
Nov. 29—Thursday. Thanksgiving Day, holiday.
Nov. 30—Friday. Holiday.
Dec. 1—Saturday. Holiday.
Dec. 22—Saturday,
to
1901—Jan. 2—Wednesday, inclusive. Christmas holidays.
Jan. 3—Thursday. Exercises of the University resumed.
Jan. 28—Monday. Mid-year examinations begin.
Feb. 9—Saturday. First half-year ends.
Feb. 11—Monday. Second half-year begins.
Feb. 12—Tuesday. Lincoln's Birthday, holiday.
Feb. 20—Ash-Wednesday, holiday.
Feb. 22—Friday. Washington's Birthday, holiday.
Mar. 1—Friday. Last day for filing applications for University Fellowships.
April 2—Tuesday. Last day for filing applications for examination for higher degrees.
April 5—Good Friday, holiday.
May 1—Wednesday. Last day for presentation of essays for the degree of Master of Arts, and for filing applications for University Scholarships.
May 20—Monday. Final examinations begin.
May 30—Thursday. Memorial Day, holiday.
June 9—Sunday. Baccalaureate Sermon.
June 10—Monday. Class Day.
Last day for filing teachers' certificates for June entrance examinations.
June 12—Wednesday. Commencement Day.
June 17—Monday. Entrance examinations begin.
July 5-6—Friday and Saturday. Registration for Summer Session.
July 8—Monday. Second Summer Session opens.
Aug. 16—Friday. Second Summer Session closes.
Sept. 23—Monday. Last day for filing teachers' certificates for September entrance examinations.
Sept. 30—Monday. Entrance examinations begin.
Oct. 7—Monday. First half-year, 148th year, begins.

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